

Economic Data Collection Program

First Receiver and Shorebased Processor Report (2009-2012)

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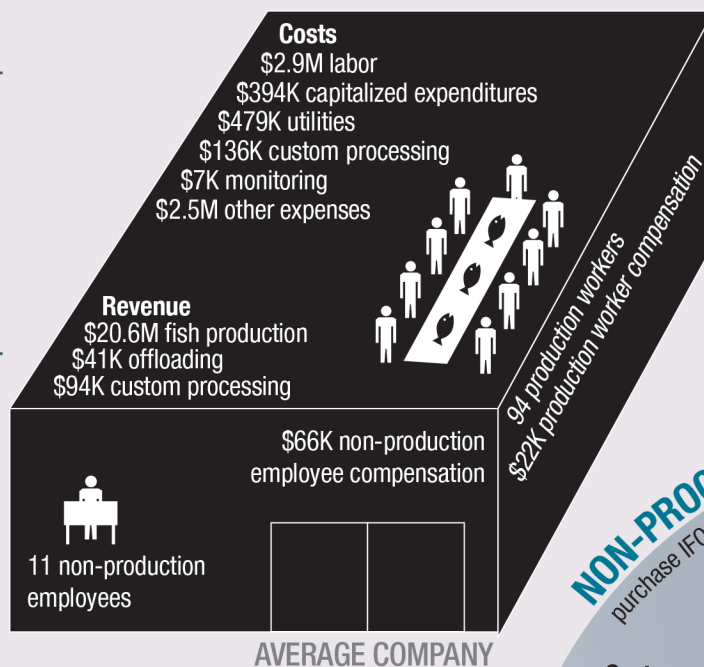
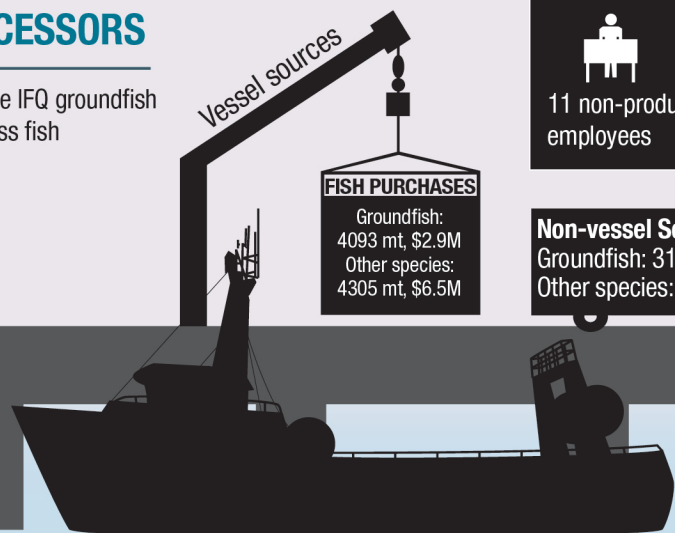
2012 Economic Data Collection (EDC) West Coast Groundfish Trawl Catch Share Program

FIRST RECEIVERS & SHOREBASED PROCESSORS

PRODUCTION	N (companies)	1000 mt	Value
Pacific whiting	10	37.2	\$55M
DTS	19	6.9	\$53M
Other groundfish	20	4.6	\$20M
Crab	19	9.3	\$121M
Shrimp	12	11.5	\$63M
Halibut	13	0.3	\$5M
Salmon	15	1.8	\$19M
Other	19	61.5	\$76M

PROCESSORS

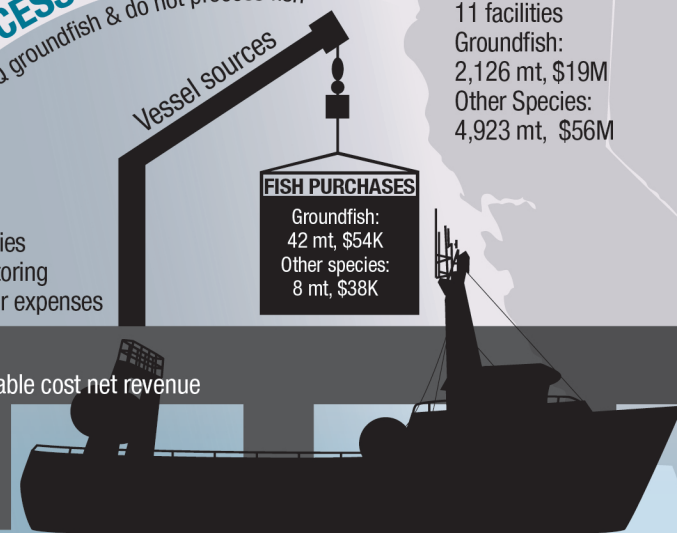
purchase IFQ groundfish
& process fish



NON-PROCESSORS

purchase IFQ groundfish & do not process fish

Costs
\$11K utilities
\$1K monitoring
\$86K other expenses

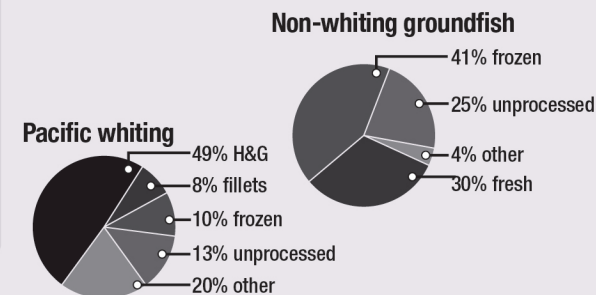


ECONOMIC SUMMARY*

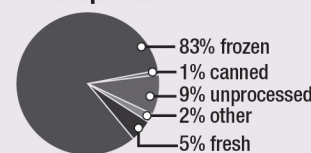
Company Average

20 processors
\$20.8M revenue
\$17.3M variable costs
\$3.5M variable cost net revenue
\$1M fixed costs
\$2.5M total cost net revenue

INDUSTRY-WIDE PRODUCT TYPES



Other species



Value & weight of processed fish
of processing facilities

Washington

4 facilities
Groundfish:
13,236 mt, \$24M
Other Species:
37,743 mt, \$57M

Oregon

9 facilities
Groundfish:
25,573 mt, \$78M
Other Species:
25,023 mt, \$130M

California

11 facilities
Groundfish:
2,126 mt, \$19M
Other Species:
4,923 mt, \$56M



SHORESIDE PROCESSING

*Note that some off-site costs are not collected. Therefore reported net revenue is an overestimate of actual net revenue.

First Receiver and Shorebased Processor Sector: 2012 Highlights

In 2012, there were twenty Processor and six Non-Processor companies that received IFQ groundfish. Processors are companies that purchased IFQ groundfish and process fish. Non-Processors are companies that purchase IFQ groundfish and do not process fish.

- The sector generated \$72 million in income and 1,460 jobs from purchases of fish caught in the trawl catch share program.
- Processors and Non-Processors received about 44% of all fish caught commercially on the West Coast in 2012, which was 33% of the total dollar value of all fish purchased.
- Processors and Non-Processors have facilities in California (23 facilities in total, 11 of which are processing facilities), Oregon (12 facilities in total, 9 of which are processing facilities), and Washington (5 facilities in total, 4 of which are processing facilities).
- Non-Processors had an average revenue per company of \$192,819 in 2012. Average variable costs were \$172,744 and average fixed costs were \$31,754. Average variable cost net revenue per company (revenue minus variable costs) was \$20,075.
- Processors employed the most production workers in the month of August, with an average of 124 production workers per company. The fewest production workers were employed in March, with an average of 65 per company. Processors on average had 11 non-production employees per company.
- Processor annual compensation per position for production workers and non-production employees was \$22,354 and \$65,865, respectively.
- Processor average revenue per company was approximately \$20.8 million, 99% of which was from fish product sales.
- Processor average total cost net revenue (revenue minus variable costs and fixed costs) was \$2.5 million. Average variable cost net revenue was \$3.5 million.

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Acknowledgments

The Economic Data Collection (EDC) Program and EDC Reports reflect collaboration and coordination of individuals across the West Coast. There are numerous individuals to thank for their contributions to this effort.

We would like to acknowledge the efforts of all the Northwest Fisheries Science Center (NWFSC) economists who provided a wide range of input into survey design, implementation, and analysis. The group worked together in an effort to provide high quality data that can be distributed in a timely and secure fashion. We thank Su Kim of the NWFSC Scientific Communications Office for producing the infographic on the second page of this report.

We appreciate the efforts of the Northwest Regional Office for support in the EDC Program development, outreach, and communication efforts. The Permit Office staff was particularly instrumental in ensuring coordination with the mandatory participation requirements.

The Northwest Division of the Office of Law Enforcement (OLE) and the National Oceanic and Atmospheric Administration (NOAA) Office of General Council helped extensively with many aspects of the EDC Program development and enforcement. They continue to cooperate with the EDC Program to ensure compliance. We thank the Northwest Fisheries Science Center Scientific Data Management staff for building an extremely useful administrative tracking system and database.

We thank PacFIN and AKFIN staff for providing access to important landings, permit, and vessel data. The staff at ODFW, WDFW, and CDFG also contributed with data used for the fielding of the baseline data collection. Other data and assistance with interpretation of data was provided by the At-sea Hake Observer Program and the West Coast Observer Program.

We thank the Pacific Fishery Management Council and advisory bodies for their valuable comments on the EDC reports and data.

Finally and very importantly, we thank the members of the West Coast fishing industry who met with us to discuss the survey development and interpretation of the information collected. We appreciate the time and effort of each participant in the program.

Report Introduction

About the Report

The US West Coast groundfish fishery takes place off the coasts of Washington, Oregon and California, and is comprised of over 90 different species of fish. The fish are harvested both commercially and recreationally. The commercial fishery has four components: limited entry with a trawl endorsement, limited entry with a fixed gear endorsement, open access, and tribal.¹ In January 2011, the West Coast Limited Entry Groundfish Trawl fishery transitioned to the West Coast Groundfish Trawl Catch Share Program. The catch share program consists of cooperatives for the at-sea mothership (including catcher vessels and motherships) and catcher-processor fleets, and an individual fishing quota (IFQ) program for the shorebased trawl fleet.² The Economic Data Collection (EDC) Program is a mandatory component of the West Coast Groundfish Trawl Catch Share Program, collecting information annually from all catch share participants: catcher-processors, catcher vessels, motherships, first receivers, and shorebased processors.³ The EDC information is used to monitor the economic effects of the catch share program, and collects information on operating costs, revenues, and vessel and processing facility characteristics.

This report summarizes information collected from the West Coast first receiver and shorebased processor sector. The EDC reports are also produced for the other sectors,³ and currently cover the years 2009 to 2012. The 2009 and 2010 data were collected in 2011 to provide a baseline of pre-catch share information. There is a one year lag in collecting the EDC data to allow companies to close their accounting books. Thus, 2012 data were collected in September 2013. The EDC reports are updated annually to disseminate the data collected and provide background, analysis, and context to support the interpretation of the data. The reports are also expected to provide a useful catalyst for feedback on the data collected and its analysis. It is envisioned that the scope of these reports will expand, and the methods used will be refined with each annual publication.

The report is composed of two major sections. The first section, First Receiver and Shorebased Processor Overview (beginning on page 8), is an in-depth summary that contains descriptive analyses of the first receiver and shorebased processor sector focusing on activities during 2012. The second section, First Receiver and Shorebased Processor Data Summaries (beginning on page 22), provides tables of all of the data collected from 2009 to 2012, with a detailed discussion of the methods used to collect and analyze the data. The tables summarize responses for each EDC form question, as well as net revenue and economic performance rates. The data that form the basis for this report are confidential and must be

¹ For more information about West Coast Groundfish, see www.westcoast.fisheries.noaa.gov/fisheries/groundfish/.

² More information about the West Coast Groundfish Trawl Catch Share Program is available online at www.westcoast.fisheries.noaa.gov/fisheries/groundfish_catch_shares/.

³ Please see the EDC website, www.nwfsc.noaa.gov/edc/, for links to the forms used to collect the EDC data and for previous year's reports.

aggregated so that individual responses are protected. In cases where there are not enough observations to protect confidentiality, the data are either not shown, or are combined with broader groups of data. More information about EDC Program administration and fielding of the surveys, the EDC forms, data quality controls and quality checks, data processing, and safeguarding confidential information can be found in the EDC Administration and Operations Report.³

Background - Economic Data Collection and West Coast Groundfish Trawl Catch Share Program

The economic benefits of the West Coast groundfish trawl fishery and the distribution of these benefits are expected to change under the West Coast groundfish trawl catch share program. To monitor these changes, the Pacific Fishery Management Council (PFMC) proposed the implementation of the mandatory collection of economic data. Using data collected from industry participants, the EDC Program monitors whether the goals of the catch share program have been met.⁴

Many of the PFMC's goals for the catch share program are economic in nature. These goals include: provide for a viable, profitable, and efficient groundfish fishery; increase operational flexibility; minimize adverse effects from an IFQ program on fishing communities and other fisheries to the extent practical; promote measurable economic and employment benefits through the seafood catching, processing, distribution elements, and support sectors of the industry; provide quality product for the consumer; and, increase safety in the fishery.

The EDC program is also intended to help meet the Magnuson-Stevens Fishery Conservation and Management Act (MSA) of 2007 requirement to determine whether a catch share program is meeting its goals, and whether there are any necessary modifications of the program to meet those goals. The MSA requires a formal review 5 years after the implementation of a catch share program to which the EDC program will make a valuable contribution.

Monitoring the economic effects of a catch share program requires a variety of economic data and analyses. The primary effects of a catch share program can be captured in two broad types of economic analysis: 1) economic performance measures, and 2) regional economic impact analysis. Both of these require information on the costs and earnings of harvesters and processors.

Economic performance measures include: costs, earnings, and profitability (net revenue); economic efficiency; capacity measures; economic stability; net benefits to society; distribution of economic net benefits; product quality; functioning of the quota market; incentives to reduce bycatch; market power; and, spillover effects in other fisheries. Some of these measures are presented in this report, while others will require more specific and involved analysis using EDC data.

⁴ For more information about the EDC program and the West Coast Groundfish Trawl Catch Share Program, please see the Economic Data Collection Program, Administration and Operations Report available at the EDC website: www.nwfsc.noaa.gov/edc

Regional economic impact analysis measures the effects of the program on regional economies. In general, the catch share program will likely affect different regional economies in different ways. Regional economic modeling involves tracking the expenditures of all businesses, households, and institutions within a given geographic region to arrive at the effects on income and employment. On the Pacific coast, the Northwest Fishery Science Center's IO-PAC model is used to estimate regional economic impacts.⁵

⁵ Leonard, J., and P. Watson. 2011. Description of the input-output model for Pacific Coast fisheries. U.S. Dept. Commer., NOAA Tech. Memo. NMFS-NWFSC-111, 64 p.

FIRST RECEIVER AND SHOREBASED PROCESSOR OVERVIEW

Management Context

In January 2011, the West Coast Limited Entry Groundfish Trawl fishery transitioned to the West Coast Groundfish Trawl Catch Share Program. The catch share program consists of cooperatives for the at-sea mothership (including catcher vessels and motherships) and catcher-processor fleets, and an individual fishing quota (IFQ) program for the shorebased trawl fleet. The Shorebased IFQ Program allocated quota to permit owners for 30 different groundfish species and rockfish complexes, and individual bycatch quota for Pacific halibut, based on catch history.⁶ Also, 20% of the shoreside Pacific whiting allocation was given to eligible shorebased processors (Table 1). Eligibility and initial allocation percentage were determined by historical deliveries to shorebased processors during a set of control dates (1994 to 2004).⁷ No quota allocation was given to processors for non-whiting IFQ groundfish.

Table 1: Processor Pacific whiting quota share allocation

Processing Company	Initial Quota Allocation (%)
Trident Seafoods Corporation	4.67
Ocean Gold Seafoods Inc	3.87
Pacific Coast Seafoods Company	3.79
Pacific Shrimp Company	2.85
Point Adams Packing Company	1.99
Ocean Beauty Seafoods LLC	0.87
Bandon Pacific Inc	0.74
Jessies Ilwaco Fish Company	0.65
Pacific Choice Seafoods	0.56
Hallmark Fisheries	0.01

⁶ <https://www.webapps.nwfsc.noaa.gov/ifq/>

⁷ <https://www.federalregister.gov/articles/2013/01/02/2012-31546/fisheries-off-west-coast-states-pacific-coast-groundfish-fishery-management-plan-trawl>

Background

A first receiver is defined by groundfish regulations as “a person who receives, purchases, or takes custody, control, or possession of catch onshore directly from a vessel.”⁸ A shorebased processor is “a person, vessel, or facility that engages in commercial processing ... at a facility that is permanently fixed to land.” With the implementation of the West Coast Groundfish Trawl Catch Share Program, federal regulations mandate that a first receiver site license is required to receive fish harvested within the Shorebased IFQ Program.⁹

In the first receiver and shorebased processor sector, 39 companies had first receiver site licenses in 2012 (55 licenses in total, as some companies have multiple licenses), 35 of which submitted a complete EDC form. Of these companies, 26 utilized their first receiver site license by purchasing groundfish caught in the catch share program. The first receiver and shorebased processor sector generated \$72 million in income and 1,460 jobs from purchases of fish caught in the catch share program.¹⁰

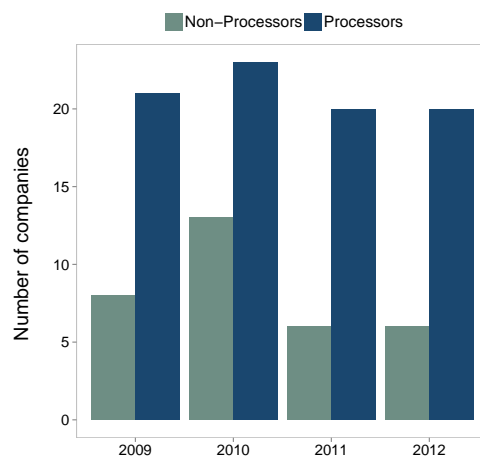


Figure 1: Number of companies characterized as Processors and Non-Processors.

First receiver and shorebased processor operations range from independent catcher vessel owners who unload and truck their own fish, to large multi-facility processing companies with a wide range of product offerings. The unit of analysis in this report is a company. Owners of multiple facilities are required to submit a form for each facility. For the ease of analysis and to protect confidentiality, businesses that reported multiple facilities are considered a single company.

Due to the variety of operations, first receivers and shorebased processors that participated in the Shorebased IFQ Program are separated into two categories:

- **Processors:** companies that purchased IFQ groundfish and process fish.
- **Non-Processors:** companies that purchased IFQ groundfish and do not process fish.

As the purpose of the EDC program is to collect information to monitor the economic effects of the catch share program, this overview only examines those Processors and Non-Processors that purchased

⁸ 50 CFR 660.111

⁹ 50 CFR 660.25

¹⁰ The values were calculated using the IO-PAC model of the NWFSC. For more information about the IO-PAC model, see Leonard, J., and P. Watson. 2011. Description of the input-output model for Pacific Coast fisheries. U.S. Dept. Commer., NOAA Tech. Memo. NMFS-NWFSC-111, 64 p.

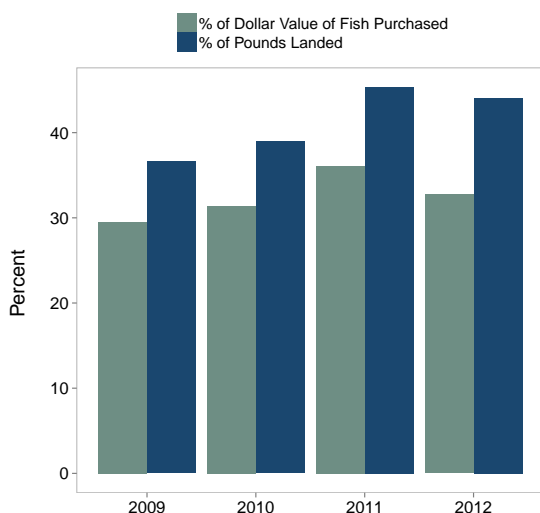


Figure 2: Percent of all West Coast shoreside commercially caught fish received by Processors and Non-Processors.

IFQ groundfish. Thus, companies that had a first receiver site license but did not purchase IFQ groundfish are excluded.¹¹ Henceforth, when this overview refers to Processors and Non-Processors, it is referring only to companies that fall into the above classifications.

In 2012, there were 20 companies classified as Processors and six companies classified as Non-Processors (Figure 1). Since 2009, there have been six new entrants. Nine companies have exited, four of which exited prior to the implementation of the catch share program in 2011.

Processors and Non-Processors received about 44% of all fish caught commercially on the West Coast in 2012, which was 33% of the total dollar value of fish purchased (Figure 2). This included 94% of all groundfish and just under 80% of all shrimp purchased on the West Coast.

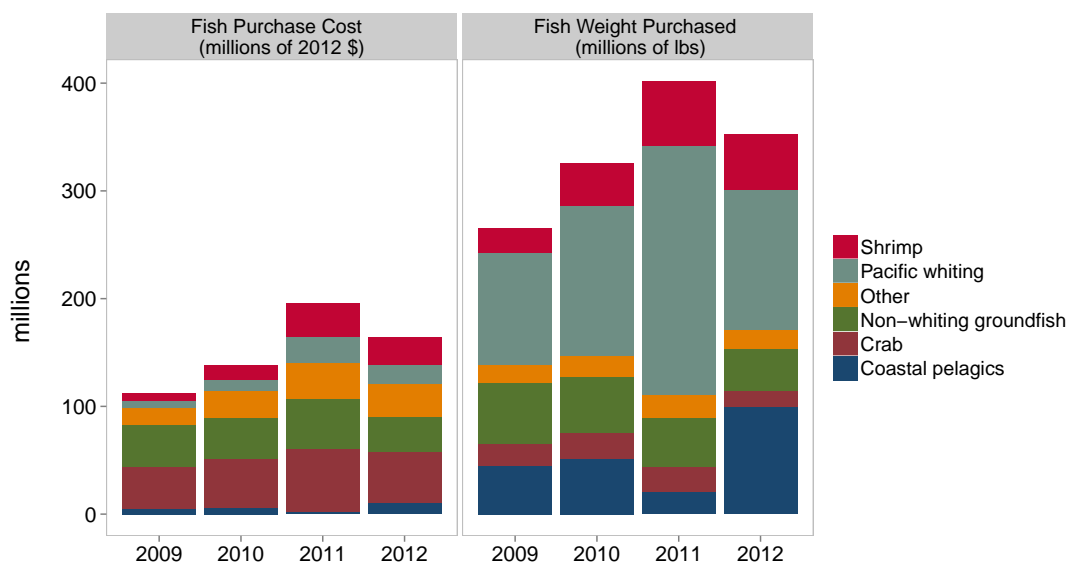


Figure 3: Processor and Non-Processor total fish purchase cost (millions of 2012 \$) (left) and purchase weight (millions of lbs) (right) by species group.

¹¹ The summary statistics in the Data Summaries include all companies that had a first receiver site license regardless of whether they utilized it to purchase IFQ groundfish.

In addition to IFQ groundfish, over 50% of the fish weight purchased and 70% of the dollar value of fish purchased in 2012 by Processors and Non-Processors were from non-IFQ landings, such as crab, shrimp, tuna, and sardines (Figure 3).¹²

Processors and Non-Processors also purchase fish from non-vessel sources, which can include other first receivers, processors, wholesale dealers, brokers, tribes, and aquaculture producers. In 2012, 10% of all fish purchased, 7% of groundfish purchased, and 13% of other species purchased were from non-vessel sources.

Table 2: Total purchase cost, landings weight, and number of companies purchasing fish for all catch share fisheries by delivery port (2012). Some companies purchase fish in multiple ports, and each company is counted in every port where fish is purchased.

	Purchase Cost (millions of \$)	Landings (millions of lbs)	Number of companies
Washington state	9.7	43.2	5
Astoria, OR	17.0	66.9	5
Newport, OR	10.0	59.0	5
Coos Bay, OR	2.8	4.6	3
Brookings, OR/Crescent City, CA/Eureka, CA	4.6	6.9	3
Fort Bragg/Bodega Bay, CA	1.9	2.6	6
San Francisco, CA	0.5	0.6	4
Monterey, CA	0.6	1.0	3
Morro Bay, CA	1.8	1.6	7

There are facilities that receive fish in all three states on the West Coast. In 2012, California had the most facilities (23), while 12 facilities were located in Oregon and 5 in Washington. The two ports with the highest IFQ landings in 2012 were Astoria and Newport, both in Oregon (Table 2). Both ports received about 60 million pounds of IFQ fish, worth \$17 and \$10 million, respectively. Washington received 43.2 million pounds, worth \$9.7 million. All of the California ports combined (including Brookings, OR, to protect confidential data) received 12.8 million pounds, worth \$9.3 million.

Non-Processors

Many of the companies classified as Non-Processors are independent catcher vessel owners who applied for first receiver site licenses to offload their own fish and truck them to shorebased processors or other buyers. Non-Processors accounted for 0.19% of total pounds received by Processors and Non-Processors combined, which was 0.44% of the dollar value of fish purchased. Average revenue per

¹² Non-IFQ landings also include groundfish caught with fixed gear without a limited entry trawl endorsement.

company associated with all operations (IFQ and non-IFQ fish) by Non-Processors was \$192,819 in 2012.¹³

Costs are divided into two categories: variable costs and fixed costs. Variable costs vary with the level of fish production, and generally include items such as fish inputs, additives, labor, and utilities. Fixed costs do not vary as directly with the level of production, and generally include items such as plant facility costs and processing equipment.¹⁴

Average variable costs were \$172,744 in 2012 and average fixed costs were \$31,754. Non-Processor variable costs make up about 84% of total costs. The largest expense was the cost of fish (71%). Other costs include utilities (7%) and licensing fees (1%). Average variable cost net revenue (revenue minus variable costs) per company was \$20,075.

Processors

Processors produce seafood products in facilities all along the West Coast, and the species processed vary by state. In Washington in 2012, coastal pelagics and Pacific whiting were the largest in terms of production volume, while crab and coastal pelagics generated the highest first-wholesale value (Figure 4). Coastal pelagics, Pacific whiting, and shrimp were the largest by volume in Oregon, while crab and shrimp were the highest by first-wholesale value. In California, crab and non-whiting groundfish were the largest by volume, with crab as the highest valued species. While the weight of seafood produced in California was much lower than in Washington and Oregon in 2012, total first-wholesale value from fish in California was similar to Washington due to the high value of crab (Figure 4).

The labor force of production workers at these companies fluctuates throughout the year due to fishing seasons and the portfolio of species being processed. Production workers include on-site workers up through the line-supervisor level who are engaged in processing, assembling, inspecting, packaging, maintenance, and similar activities.¹⁵ In 2012, Processors employed the most production workers in the month of August, with 2,471 total workers (an average of 124 workers per company). The fewest production workers were employed in March, with 1,294 total workers (an average of 65 workers per company). As would be expected, the months with more pounds purchased have larger numbers of production workers. These months of heavy operations seem to be shifting to later in the calendar year, from June in 2009 to August in 2012. The number of production workers also increases in the winter months during crab season (Figure 5).

In addition to production workers, Processors have non-production employees, which includes on-site supervisors and individuals responsible for sales, advertising, credit, collection, record keeping, and similar activities.¹⁶ In 2012, Processors had on average 11 non-production employees per company. Generally,

¹³ Values reported in inflation adjusted 2012 dollars.

¹⁴ See Section 2.3 of the Data Summaries for more details.

¹⁵ See Section 2.2.1 of the Data Summaries for more details.

¹⁶ See Section 2.2.2 of the Data Summaries for more details.

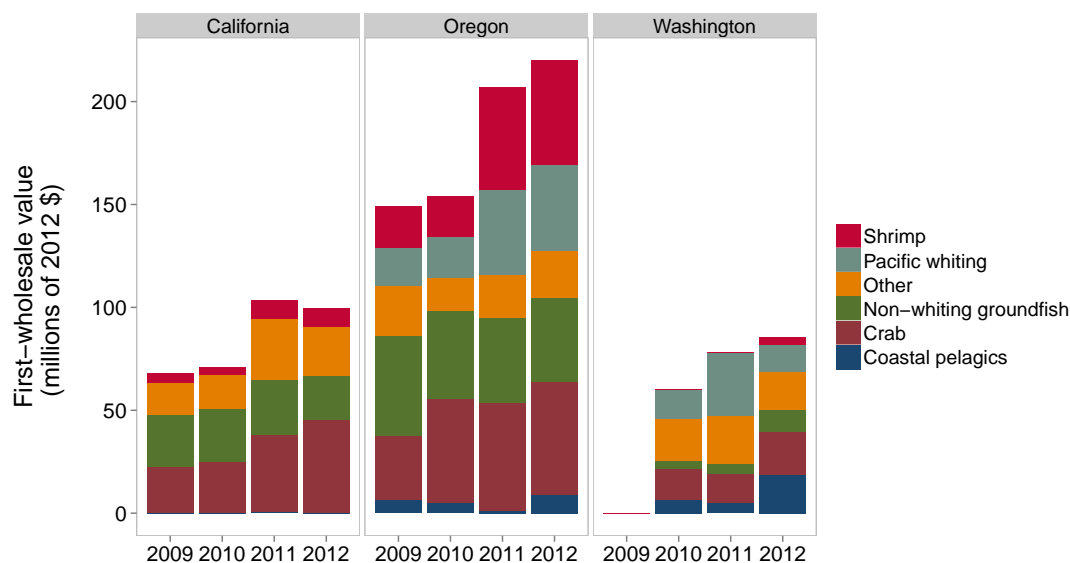


Figure 4: Total first-wholesale value of fish produced by Processors in each state (millions of 2012 \$).
(Note: If fewer than three companies processed a given species in a given state, the first-wholesale value is suppressed to protect confidential data).

non-production employees are employed for the entire calendar year, while many production workers are employed seasonally. Measures of compensation are calculated using annual labor expenses and extrapolating from employment information given for select weeks of the year.¹⁷ The average

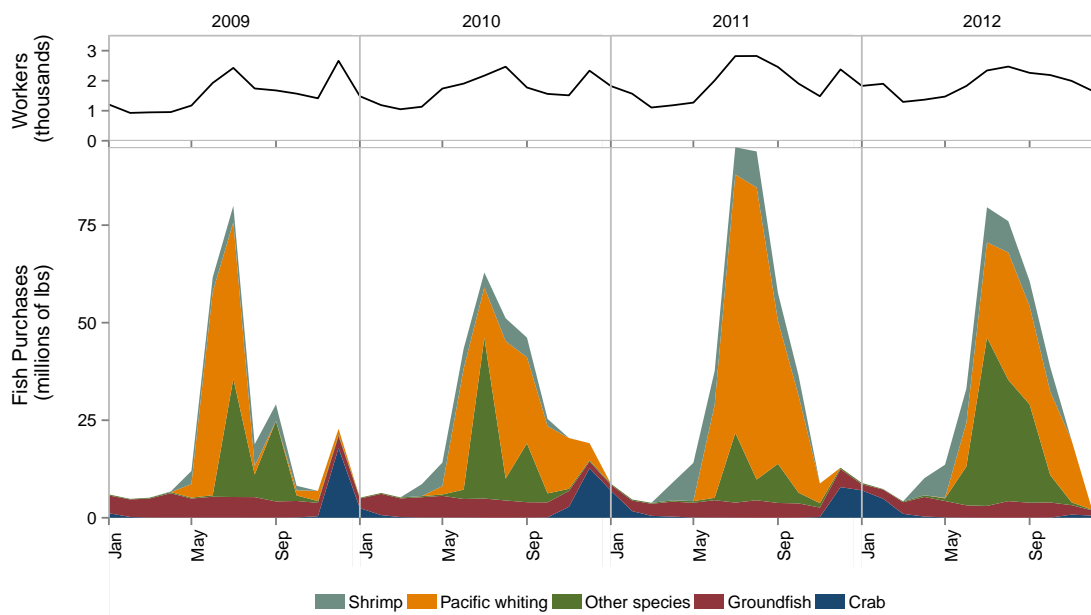


Figure 5: Number of production workers employed by Processors (thousands) (top) and total pounds purchased by Processors in each month by species group (millions of lbs) (bottom).

¹⁷ See Section 2.2.3 of the Data Summaries for more details on compensation calculations.

hourly compensation for production workers was \$13.64 in 2012, which is a decline from \$14.60 in 2009. Annual production worker compensation per position was \$22,354 in 2012. The average hourly compensation for non-production employees was \$33.89, which is similar to 2009 (\$33.38). Annual non-production employee compensation per position was \$65,865 in 2012.

Processors – Costs and Earnings

Processor earnings are comprised of fish sales, offloading revenue, custom processing revenue, and revenue from leasing or selling quota. Average revenue per company was approximately \$20.8 million in 2012. Nearly all of Processor revenue was made up of fish product sales (99%). Average annual first-wholesale price per pound is the ratio of the annual production revenue received by Processors to the annual production weight (Figure 6). Crab and salmon have had the most dramatic increases in first-wholesale price, which seem to be correlated with increases in ex-vessel prices.

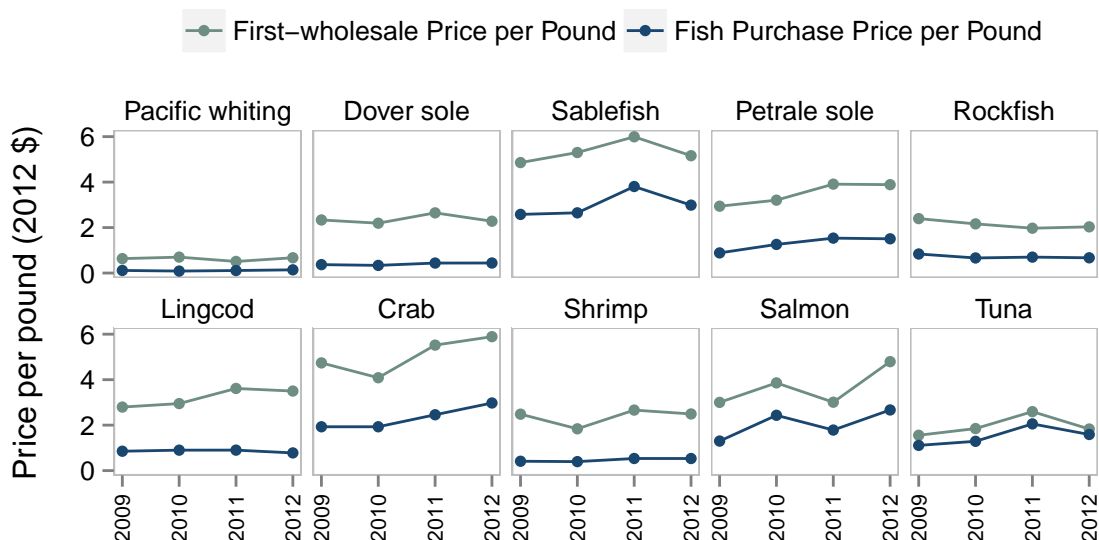


Figure 6: Industry average first-wholesale and fish purchase price per pound for select species (2012 \$).

Variable costs made up an average of 94% of a Processor's total costs in 2012 and averaged approximately \$17.3 million per company. The largest expense was the cost of fish purchased, primarily from vessels but also from other fish buyers, which averaged 70% of variable costs. The next largest categories of expenses (Figure 7) for Processors were labor (18%), packing materials (3%), and utilities (3%). Monitoring costs include shoreside catch monitors, who confirm that total landings are accurately sorted, weighed, and recorded on fish tickets. In 2008, there was partial catch monitor coverage of Pacific whiting deliveries, which was paid for by industry. In 2009 and 2010, all deliveries of Pacific whiting to a shorebased first receiver were verified by catch monitors, funded entirely by industry. Since the implementation of the catch share program in 2011, catch monitors have been required for deliveries

of both Pacific whiting and IFQ groundfish. In 2011 and 2012, catch monitors were subsidized at \$41 per hour with a maximum of \$328 per day. This subsidy decreased to \$27 per hour and \$216 per day in 2014. The average cost of monitoring was approximately \$7,000 per company in 2012.

Fixed costs include capitalized expenditures on buildings, machinery, and processing equipment, rental or lease of buildings and other structures, and repair and maintenance on facility buildings, machinery, and equipment. Fixed costs made up about 6% of Processor total annual expenditures in 2012, and averaged \$1.03 million.

Average labor expenses have increased since the implementation of the catch share program (Figure 7), which seems to be driven in part by an increase in average number of workers and hours worked in catch share years relative to 2009-10. Average expenses on additives and utilities have gradually increased since 2009. The fall in average fixed costs is largely due to a decrease in capitalized expenditures, as other fixed costs, such as rent and repairs and maintenance, have increased during this period.

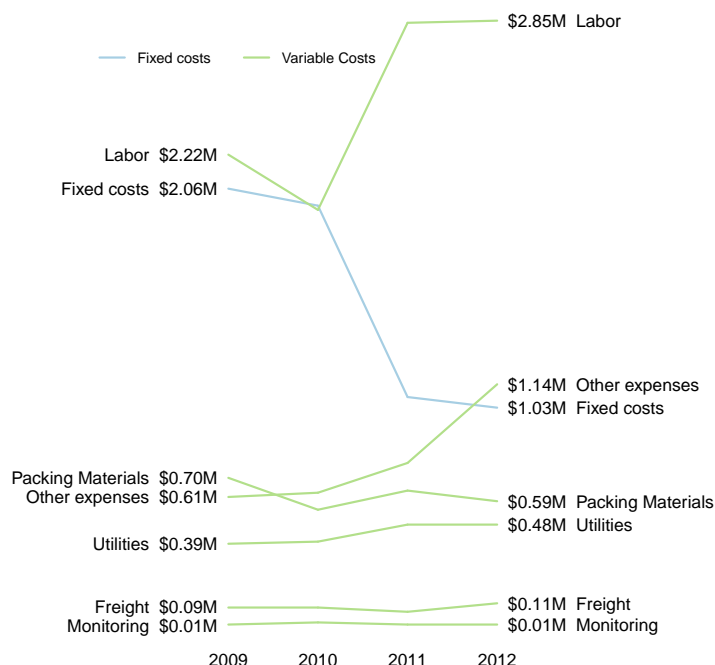


Figure 7: Average fixed and variable costs per company. Fish costs are not displayed on the figure; they averaged \$7 million in 2009 and \$12 million in 2012 (2012 \$).

The EDC Program measures the net economic benefits of the catch share program by reporting two types of net revenue. The first is variable cost net revenue, which is revenue minus variable costs. The second is total cost net revenue, which is revenue minus both variable and fixed costs.¹⁸ To provide a complete picture of the changes that have occurred, both net revenue figures are presented at two scales. Figure 8 shows the average net revenue per company while Figure 9 shows the industry-wide net revenue. Average net revenue shows the value generated by a typical company, while industry-wide net revenue represents the total value generated by all Processors. It is important to note that the EDC forms attempt to capture only costs that are directly related to facility maintenance and processing operations, and not costs that are related to activities or equipment beyond the facility. Therefore, the net revenue reported here is an overestimate of the true net revenue.¹⁹

When the fixed and variable costs associated with receiving and processing fish are accounted for, the total cost net revenue for all operations (IFQ and non-IFQ) was an average of \$2.5 million for Processors

¹⁸ See Figure 7 for a description of which costs are considered variable costs and which costs are considered fixed costs.

¹⁹ See Section 2.6 of the Data Summaries for more information.

in 2012; that is over a 124% increase from 2009 to 2012 (Figure 8). Considering only the costs that vary directly with fish production, the average variable cost net revenue of Processors was \$3.5 million; that is a 11% increase from 2009 to 2012. The rise in average total cost net revenue over the past four years appears to be driven largely by substantial decreases in fixed cost expenditures incurred by

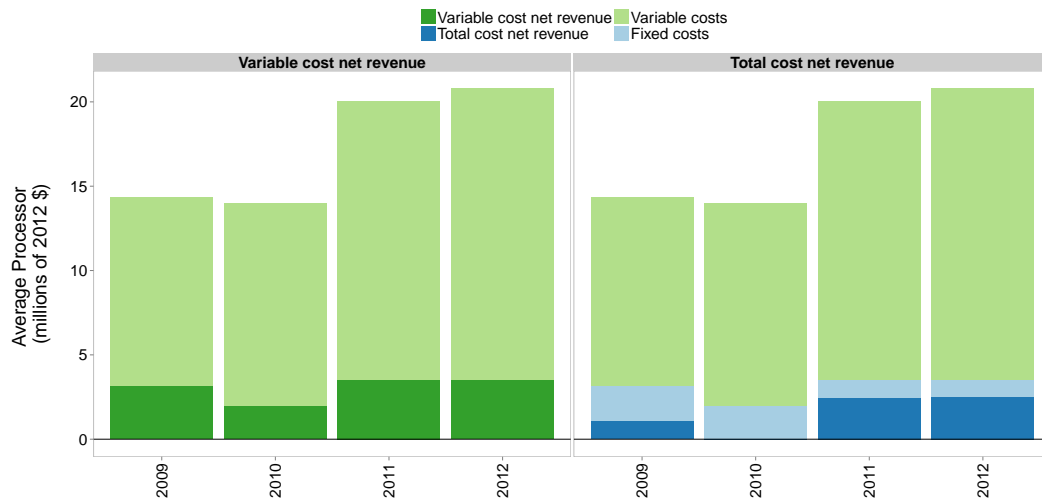


Figure 8: Average variable cost net revenue (revenue minus variable costs) (left), and average total cost net revenue (revenue minus variable costs and fixed costs) (right) for all operations (IFQ and non-IFQ) (millions of 2012 \$).

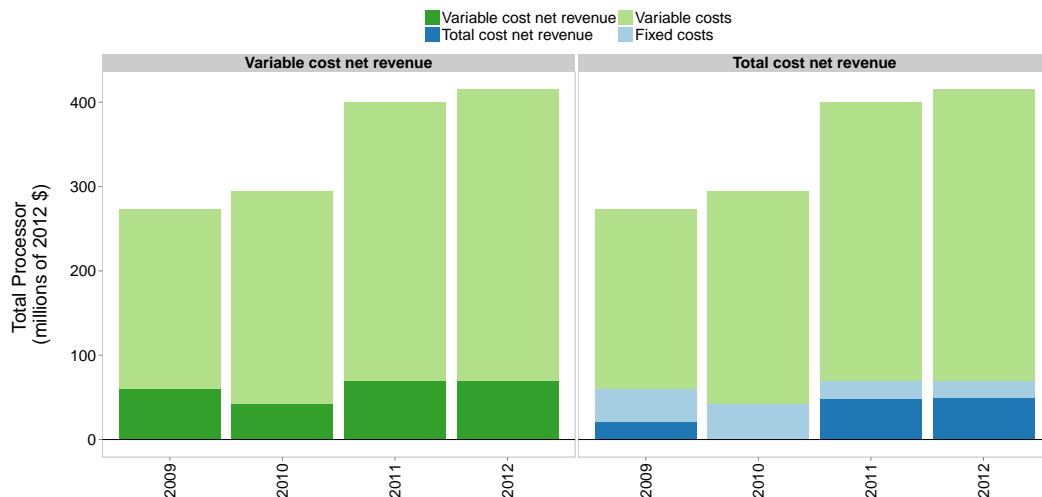


Figure 9: Industry-wide variable cost net revenue (revenue minus variable costs) (left), and industry-wide total cost net revenue (revenue minus variable costs and fixed costs) (right) for all operations (IFQ and non-IFQ) (millions of 2012 \$).

Processors. While average revenue has increased 45% since 2009 and average variable costs have increased 54%, fixed costs have decreased 50% from 2009 to 2012.

The industry-wide total cost net revenue for all Processors in 2012 was \$49.9 million and the industry-wide variable cost net revenue was \$70.5 million (Figure 9).

Processors – Production

Shoreside Pacific whiting

The EDC form collects information about seven types of Pacific whiting products: fillets, frozen whole, headed-and-gutted, surimi, roe, unprocessed, and other. Much of the total Pacific whiting produced in 2012 by Processors was headed-and-gutted (49%), a 37% decrease from 2009 (Figure 10). The decrease in headed-and-gutted Pacific whiting since 2009 has led to a larger percent of all other product types. While filleted Pacific whiting commands the highest first-wholesale price, headed-and-gutted Pacific whiting is the highest valued product in terms of total revenue generated by Processors.

Markup, a measure of value-added, is the ratio of the value of fish sold to the cost of fish purchased. The industry average Processor markup

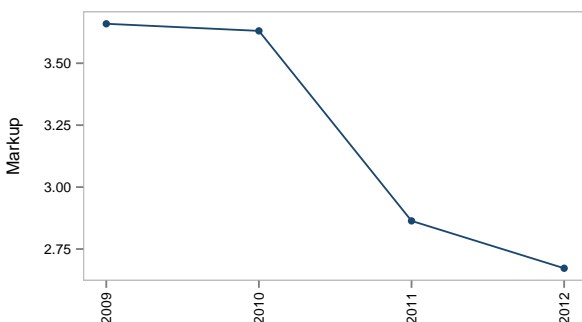


Figure 11: Industry average markup for Pacific whiting.

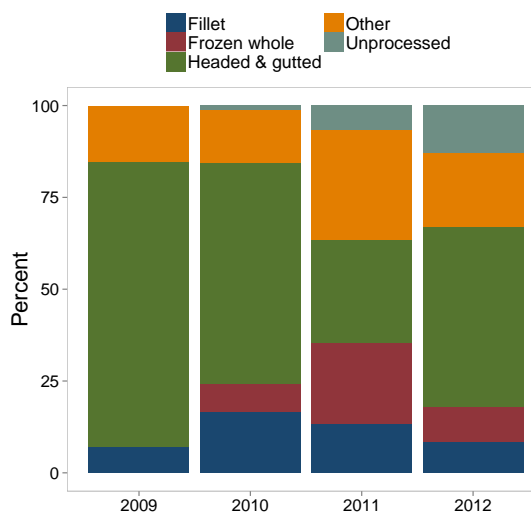


Figure 10: Pacific whiting product types as a percent of industry-wide production volume.

(Note: The other category includes surimi and roe products, as well as frozen whole and unprocessed in 2009, to protect confidential data.)

for shoreside Pacific whiting was 2.7, which is a 27% decrease from 2009 (Figure 11). While average Pacific whiting ex-vessel prices have been steadily increasing since 2009, the average first-wholesale price for Pacific whiting decreased from 2009 to 2011 (Figure 6).

In 2012, most of the U.S. Pacific whiting exports went to the European Union, followed by Ukraine, Russia, and China, among others (Figure 12).²⁰

²⁰ www.st.nmfs.noaa.gov/commercial-fisheries/foreign-trade/index

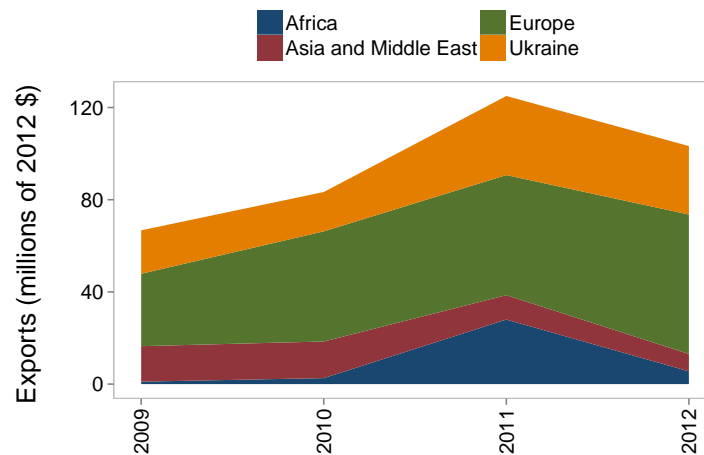


Figure 12: Total exports of fresh and frozen Pacific whiting (including mothership, catcher-processor, and shoreside production) from the West Coast by recipient region (millions of 2012 \$).

Non-whiting groundfish

Non-whiting groundfish include flatfish (e.g., petrale sole and dover sole), roundfish (e.g., sablefish and lingcod), and rockfish. Non-whiting groundfish product types collected in the EDC form include processed fresh, frozen, unprocessed, and other. Most of the non-whiting groundfish processed is fresh, except for sablefish which is mainly frozen (Figure 14). For dover sole, petrale sole, and rockfish, the percentage processed fresh has decreased since 2009 and was coupled with an increase in unprocessed fish and other products. The opposite trend can be seen for lingcod. There is an international market for sablefish, which may explain why the primary product type is frozen (Figure 13).²¹

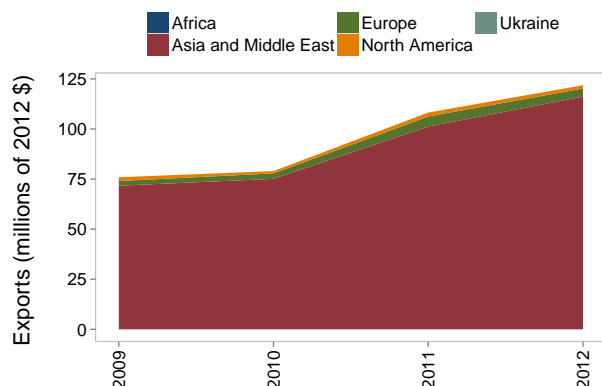


Figure 13: Total exports of sablefish from the West Coast by recipient region (millions of 2012 \$).

The industry average markup for non-whiting groundfish was 1.6 in 2012, the same as in 2009 (Figure 15).

²¹ http://www.fishwatch.gov/seafood_profiles/species/cod/species_pages/sablefish.htm

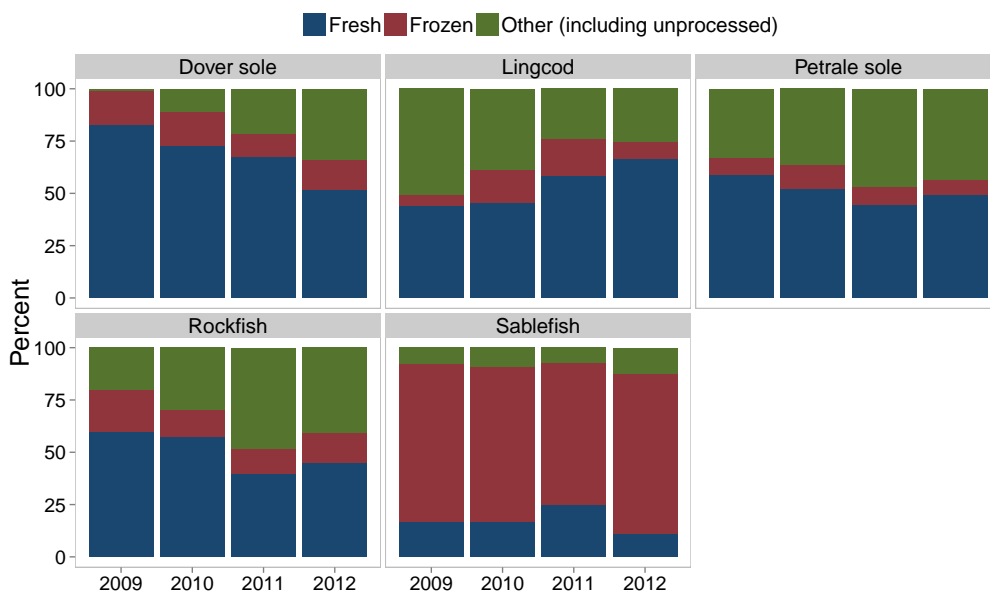


Figure 14: Product types as a percent of industry-wide production volume for select groundfish species.

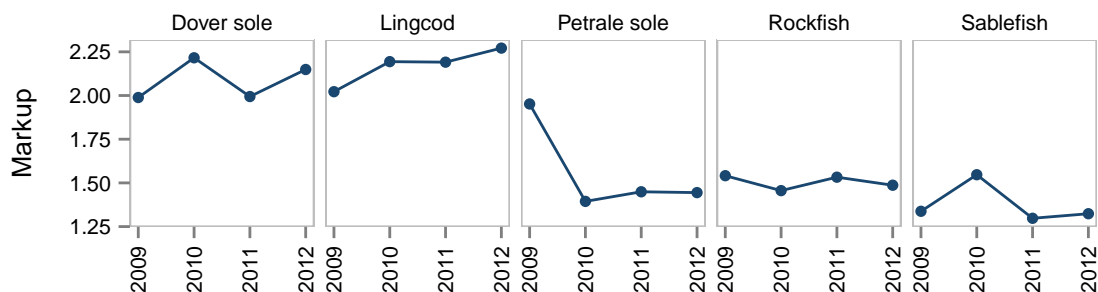


Figure 15: Industry average markup for select groundfish species.

Other species

The Other species category includes coastal pelagics, salmon, crab, shrimp, shellfish, Pacific and California halibut, Pacific herring, squid, sturgeon, and tuna. Product types collected in the EDC form include processed fresh, frozen, unprocessed, canned,²² smoked,²³ and other. There has been an increase in the percent of unprocessed crab, salmon, and tuna produced in catch share years (Figure 16). This is coupled with a decrease in the percent of processed fresh crab, shrimp, and salmon.

The industry average markup for other species was 1.6 in 2012 (Figure 17).

²² The canned product type is collected for coastal pelagics, crab, salmon, shrimp, and sturgeon.

²³ The smoked product type is collected for salmon.

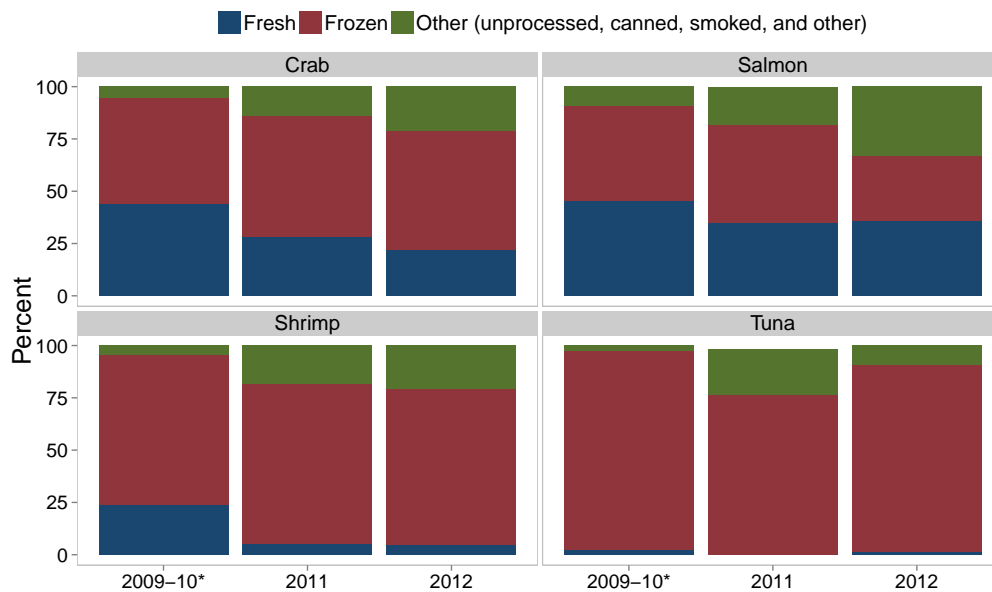


Figure 16: Product types as a percent of industry-wide production volume for select non-whiting, non-groundfish species. (*Note: 2009 and 2010 are combined to protect confidential data).

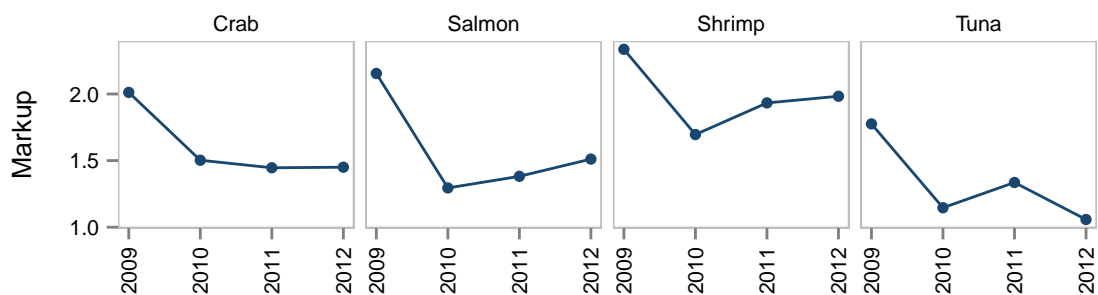


Figure 17: Industry average markup for select other species.

FIRST RECEIVER AND SHOREBASED PROCESSOR DATA SUMMARIES

FIRST RECEIVER AND SHOREBASED PROCESSOR DATA SUMMARIES

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1 Introduction

1.1 Background

The US West Coast groundfish fishery takes place off the coasts of Washington, Oregon and California, and is comprised of over 90 different species of fish. The fish are harvested both commercially and recreationally. The commercial fishery has four components: limited entry with a trawl endorsement, limited entry with a fixed gear endorsement, open access, and tribal.¹ In January 2011, the West Coast Limited Entry Groundfish Trawl fishery transitioned to the West Coast Groundfish Trawl Catch Share Program. The catch share program consists of cooperatives for the at-sea mothership (including catcher vessels and motherships) and catcher-processor fleets, and an individual fishing quota (IFQ) program for the shorebased trawl fleet.²

The Economic Data Collection (EDC) Program³ was implemented as part of these new regulations to monitor the economic effects of the catch share program. Annual economic data submissions are required from all fishery participants: catcher vessels, motherships, catcher-processors, and first receivers and shorebased processors §50 CFR 660.114. Baseline, pre-catch share, data were submitted in 2011 for the 2009 and 2010 operating years. Data for the first year the fishery operated under the catch share program (2011) were submitted in 2012, and the 2012 data submitted for this report were collected in 2013.

The EDC Program has enhanced the quantity and quality of economic information available for analysis and the management of the West Coast groundfish trawl fishery. While costs and earnings data are available for shorebased catcher vessels starting in 2004⁴, this is the first data collection from the first receiver and shorebased processor sector. This report summarizes the 2009-12 EDC first receiver and shorebased processor survey data, and with its companion reports covering the other sectors, is the

¹ For more information about West Coast Groundfish, see www.westcoast.fisheries.noaa.gov/fisheries/groundfish/.

² More information about the West Coast Groundfish Trawl Catch Share Program is available online at www.westcoast.fisheries.noaa.gov/fisheries/groundfish_catch_shares/.

³ Additional information on the EDC Program, including the EDC data collection forms can be found at www.nwfsc.noaa.gov/edc

⁴ Lian, C.E. 2010. West Coast limited entry groundfish trawl cost earnings survey protocols and results for 2004. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-NWFSC-107, 35 p.

second in what is expected to be an annual series of reports. EDC economists will expand and refine the scope and methods used with each new annual publication.

1.2 About the survey participants

First receiver and shorebased processor operations range from independent catcher vessel owners who unload and truck their own fish, to large multi-facility processing companies with a wide range of product offerings. Some respondents who provide information do not own a physical processing facility and thus do not incur many of the costs on the form. In the 2011 EDC First Receiver and Shorebased Processor Report, summary statistics were based on all survey respondents including those that did not process fish. In order for the information contained in this report to be more meaningful, the summary statistics for those companies who process fish and those companies who do not process fish are reported in two separate sections. This report refers to EDC companies that have processing activity as EDC Processors, and refers to EDC companies that have no processing activity as EDC Non-Processors. Table 1.1 shows the numbers of processing and non-processing companies that fill out EDC forms each year.

Table 1.1: EDC Processors and Non-Processors. Number of companies that reported processing activity and number of companies that reported no processing activity by survey year (N = number of companies, % = percent of all companies that submitted a form in survey year).

	2009		2010		2011		2012	
	N	%	N	%	N	%	N	%
EDC Processors	21	100.0%	23	100.0%	24	70.6%	25	75.8%
EDC Non-Processors	—	—	—	—	10	29.4%	8	24.2%

1.3 Understanding the report

Not all business entities with a first receiver license process fish, and much of the EDC form does not correspond to this type of operation. On 2009 and 2010 forms, a company was permitted to leave most of the form blank if they did not process any groundfish or whiting. This was changed on the 2011 form (and subsequent forms) and all participants are required to answer all questions. Thus, the data available for EDC Processors are from first receivers and shorebased processors who processed groundfish in 2009 and 2010, and from first receivers and shorebased processors who processed groundfish or any other fish from 2011 onward. The data available for EDC Non-Processors in this report are from 2011 and 2012.

The unit of analysis identified in the summary tables is a company. Owners of multiple facilities are required to submit a form for each processing facility. For the ease of analysis and to protect confidentiality, businesses that reported for multiple facilities are considered a single company.

For questions not applicable to a company's particular business operation, the participant is instructed on the form to fill in "Not Applicable" or "NA". For each value displayed in the summary data tables, N is displayed. In most cases, N represents the number of responses to the question that are not "NA" and not zero, unless noted otherwise. If a particular category had only "NA" responses for all participants, a "—" symbol is used. The "—" symbol also represents cases where the information was not requested on the form for that survey year.

Although participants are identified on a calendar year basis, they complete the form using information based on the fiscal year of the entity. Currently data are presented for survey year, and therefore data assigned to a survey year may not overlap completely with the calendar year. Information obtained from outside of the EDC Program are adjusted to match the fiscal year provided on each form.

All data submitted via the EDC Program are confidential under 402(b) of the Magnuson- Stevens Act (16 U.S.C. 1801, et seq.) and under NOAA Administrative Order 216-100. In order to protect these data, a rule of three and a rule of 90-10 are implemented. The rule of three requires a response from at least three companies in order to show a summary statistic. The 90-10 rule requires that no single company's value should comprise over 90 percent of the value displayed. The tables show a "****" for data points where there were less than three companies reporting the information, and/or if one company's responses accounted for greater than 90 percent of the average value. Zeroes are shown if all companies reported zeroes. More information about how confidential data are protected in the EDC Program can be found in the Administration and Operations report.

One change implemented this year is the inclusion of a measure of variation of the data. The stacked dots included in the tables provide information about the coefficient of variation (CV) of the mean. For 2009-2012, none of the CVs exceeded 2.9. We use the following scoring:

- represents $CV < 0.5$,
- ⋮ represents $0.5 \leq CV < 1.0$,
- ⋮ represents $1.0 \leq CV < 2.0$, and
- ⋮ represents $2.0 \leq CV$.

Unlike the Overview, all numbers reported in the Data Summaries are generated from the raw responses received from participants and, therefore, are in nominal dollars.

1.4 Purpose of the data summaries

This report, like the other four EDC reports,⁵ has multiple objectives. The first is to provide basic economic data summaries that can be used for a variety of purposes associated with fishery management.

⁵ In addition to the first receiver and shorebased processor report, there are four companion reports:

Since much of the data collected are confidential under the Magnuson-Stevens Fishery Conservation and Management Act (MSA) of 2007, the data are summarized as averages or totals for each question on the EDC forms. Thus summarized, the reports make the data available to the public for both research and informational purposes.

Second, the reports provide information about the performance of the catch share program. This includes information that can be used to monitor whether and to what degree the goals of the program are being met. It is expected that additional modeling and analysis will be included in each subsequent year that will provide more detailed information about the performance of the program. These reports will serve as the basis for the 5-year review of the catch share program that is mandated in the MSA, as well as the NMFS National Catch Shares Performance Indicators. Currently, with just two years of catch share EDC data, it may be difficult to draw firm conclusions about the performance of the program. In addition, the catch share program may have a transitional period in the first few years as participants learn about the system and develop new business strategies.

Third, the reports either provide or serve as the basis for economic models that will be used as part of the Pacific Fishery Management Council's (PFMC) biennial specification process for groundfish management. These models include the IO-PAC model,⁶ as well as estimates of revenue, costs, and net revenue.

Lastly, and perhaps most importantly, the data reports are expected to provide a useful catalyst for feedback on the data collected and its analysis.

The Administration and Operations report describes the EDC Program administration and fielding of the surveys, the EDC forms, data QA/QC and data processing, and safeguarding confidential information. The other EDC reports provide basic data summaries for the catcher vessel, catcher-processor, and mothership forms.

1.5 First receiver and shorebased processor form administration

Completion of EDC forms is mandatory for participants in the catch share program. The regulations for defining who is required to complete an EDC form differs between the baseline data collection (2009 and 2010) and all annual/ongoing data collections for 2011 onward. Under 50 CFR part 660 and section 402(a) of the Magnuson-Stevens Act (16 U.S.C. 1801, et seq.) all owners and lessees of a shorebased

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- Economic Data Collection Program, Administration and Operations Report (September 2014)
 - Economic Data Collection Program, Catcher-Processor Report, 2009-2012 (September 2014)
 - Economic Data Collection Program, Catcher Vessel Report, 2009-2012 (September 2014)
 - Economic Data Collection Program, Mothership Report, 2009-2012 (September 2014)

⁶ Leonard, J., and P. Watson. 2011. Description of the input-output model for Pacific Coast fisheries. U.S. Dept. Commer., NOAA Tech. Memo. NMFS-NWFSC-111, 64 p.

processor and all buyers that receive groundfish or whiting harvested with a limited entry trawl permit as listed in the Pacific States Marine Fisheries Commission's state fish ticket database were required to submit an Economic Data Collection (EDC) Form in 2009 and 2010. Beginning in 2011, a first receiver site license was required to land catch share harvested fish. The regulation requires all owners of a first receiver site license in 2011 and beyond, and all owners and lessees of a shorebased processor (as defined under "processor" at 660.11, for purposes of EDC) that received round or headed-and-gutted IFQ species groundfish or whiting from a first receiver in 2011 and beyond to submit an EDC form for that year. Owners of multiple facilities are required to submit a form for each processing facility. A first receiver site license application will not be considered complete until the required EDC form for that license owner associated with that license is submitted.

A calendar year is used to determine which facilities meet the criteria. For example, in 2012, data were collected from all owners of a first receiver site license in 2011. The forms are fielded on this schedule in order to allow participants the time necessary to complete their taxes, which may contain some information that is required on the EDC forms. Participants are identified using contact information provided by the Northwest Regional Office - Permit Office (Permit Office).

If a form has missing information, or the information provided on the form is believed to be incorrect, EDC Program staff attempt to contact the participant to correct the information. On occasion the participant cannot be reached or the participant cannot provide the missing information. In these cases, the missing or inaccurate data are treated on a case by case basis during analysis as documented in the Administration and Operations report. Data are validated and verified with external data sources whenever possible. These data sources include the Permit Office and state fish tickets.

Table 1.2: Survey response rates. Total forms owed, number of forms that were submitted, number of forms that are complete, and number of companies that submitted EDC forms by survey year.

Status	2009	2010	2011	2012
Total forms owed	55	58	52	55
Submitted forms	37	45	51	52
Complete forms	37	45	49	50
Companies that submitted forms	29	37	36	37

2 EDC Processors

This section of the report summarizes information on first receivers and shorebased processors that process fish, EDC Processors. Groundfish regulations (50 CFR 660.11) define a shorebased processor as “a person, vessel, or facility that engages in commercial processing... at a facility that is permanently fixed to land.” In 2009 and 2010, only companies that processed groundfish were required to fill out the entire form. In 2011 onward, all companies with a first receiver site license were required to submit the entire form. Thus, there may be some companies that received groundfish all four years of the survey but only process non-whiting, non-groundfish fish. These companies are only included in summary statistics for 2011 onward.

2.1 Facility Value

2.1.1 Appraisal value of facility

Table 2.1: Value from last appraisal of facility (N = number of EDC Processors with non-zero, non-NA responses).

	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Market value of facility from last appraisal	\$1,450,000 [*]	4	\$1,161,023 [†]	5	\$1,650,000 [*]	3	\$1,537,500 [*]	4
Replacement value of facility from last appraisal	\$4,971,339 [‡]	5	\$4,144,450 [‡]	6	\$6,335,566 [‡]	3	\$6,335,566 [‡]	3

2.2 Employment

This section provides information about number of employees, number of hours worked, and labor costs. These figures include full, part-time, and temporary employees. Workers involved directly with production and non-production employees are provided separately.

2.2.1 Production workers

Production workers include workers at the facility up through and including the line-supervisor level who are engaged in fabricating, processing, assembling, inspecting, receiving, packing, warehousing, shipping, maintenance, repair, janitorial staff, product development, or transporting product on site. The EDC form asks for production worker employment figures for the week that includes the 12th day of the month, thus the following tables present a weekly snapshot of employment for each month throughout the year.

Table 2.2: Weekly employment: Number of production workers. Number of production workers for the week that includes the 12th of the month. (N = number of EDC Processors with non-zero, non-NA responses).

Month	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
January	64 [‡]	19	71 [‡]	21	83 [‡]	22	84 [‡]	22
February	49 [‡]	19	56 [‡]	21	72 [‡]	22	87 [‡]	22
March	50 [‡]	19	50 [‡]	21	51 [‡]	22	60 [‡]	22
April	53 [‡]	18	57 [‡]	20	54 [‡]	22	63 [‡]	22
May	65 [‡]	18	87 [‡]	20	56 [‡]	23	68 [‡]	22
June	107 [‡]	18	91 [‡]	21	88 [‡]	23	81 [‡]	23
July	128 [‡]	19	103 [‡]	21	127 [‡]	24	108 [‡]	24
August	92 [‡]	19	117 [‡]	21	121 [‡]	24	113 [‡]	24
September	93 [‡]	18	89 [‡]	20	109 [‡]	24	101 [‡]	24
October	83 [‡]	19	78 [‡]	20	83 [‡]	23	102 [‡]	23
November	79 [‡]	18	76 [‡]	20	65 [‡]	23	88 [‡]	23
December	140 [‡]	19	111 [‡]	21	109 [‡]	22	74 [‡]	23

Table 2.3: Weekly employment: Production worker hours. Hours worked by production workers for the week that includes the 12th of the month. (N = number of EDC Processors with non-zero, non-NA responses).

Month	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
January	1,912.9 [‡]	19	1,582.6 [‡]	21	2,424.2 [‡]	22	2,422.1 [‡]	22
February	990.9 [‡]	19	1,512.0 [‡]	21	1,949.7 [‡]	22	2,219.0 [‡]	22
March	1,322.4 [‡]	19	1,337.4 [‡]	21	1,478.7 [‡]	22	1,502.8 [‡]	22
April	1,479.2 [‡]	18	1,817.3 [‡]	20	1,786.1 [‡]	22	1,951.2 [‡]	22
May	2,482.3 [‡]	18	3,163.9 [‡]	20	2,293.5 [‡]	23	2,112.6 [‡]	22
June	3,602.6 [‡]	18	3,100.5 [‡]	21	3,791.1 [‡]	23	2,169.2 [‡]	23
July	6,385.3 [‡]	19	4,096.0 [‡]	21	6,146.6 [‡]	24	4,474.7 [‡]	24
August	3,397.7 [‡]	19	4,452.5 [‡]	21	6,606.3 [‡]	24	4,746.6 [‡]	24
September	2,859.1 [‡]	18	3,119.1 [‡]	20	5,008.5 [‡]	24	4,012.8 [‡]	24
October	4,155.8 [‡]	19	2,350.3 [‡]	20	3,143.0 [‡]	23	4,214.4 [‡]	23
November	2,705.6 [‡]	18	2,195.7 [‡]	20	2,155.0 [‡]	23	3,329.8 [‡]	23
December	5,307.2 [‡]	19	5,688.2 [‡]	21	4,774.8 [‡]	22	2,783.4 [‡]	23

2.2.2 Non-production employees

All non-production employees include those involved in supervision above the line-supervisor level, as well as individuals in the company responsible for sales, advertising, credit, collection, installation, the cafeteria, recordkeeping, clerical and routine office functions, guard services, executive management, purchasing, finance, and legal affairs. Companies that do not track hours for salaried employees are asked to assume a forty-hour workweek. These employment figures are for the week that includes the 12th of March.

Table 2.4: Weekly employment: Non-production employees. Number of non-production employees and hours worked for the week that includes March 12. (N = number of EDC Processors with non-zero, non-NA responses).

	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Hours Worked	633.8	19	810.1	21	444.2	24	387.5	24
Number of employees	10.2	19	12.5	21	8.7	24	10.0	24

2.2.3 Compensation

Hourly compensation for each EDC Processor is calculated by dividing annual labor expenses (Section 2.3.2) by an estimate of total annual hours worked. The EDC form requests information on number of employees and total hours worked for the week including the 12th day of the month for production workers and for the week including the 12th day in March for non-production employees. Estimates of total annual hours worked for each company are found by assuming that employment information for the week of the 12th is representative of the entire month and by weighting each month equally using the following formula:

$$\sum_{m=1}^{12} \left(\frac{\text{Hours}}{\text{week}} \right)_m * \frac{52}{12}$$

Table 2.5: Hourly compensation. Average hourly compensation. (N = number of EDC Processors with non-zero, non-NA responses).

	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Production workers	\$14.14	18	\$13.70	20	\$12.62	22	\$13.72	21
Non-production employees	\$31.42	18	\$30.71	21	\$31.21	24	\$33.68	24

Compensation per position for each EDC Processor is calculated by dividing annual labor expenses (Section 2.3.2) by the average numbers of workers across months in year. This assumes that the average number of workers is representative of the total number of positions that year. For non-production workers, it is assumed that number of workers in the week containing March 12th is representative of the number of non-production employee positions in all weeks during the year.

Table 2.6: Compensation per position. Average compensation per position. (N = number of EDC Processors with non-zero, non-NA responses).

	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Production workers	\$21,161	18	\$20,421	20	\$23,582	22	\$21,918	21
Non-production employees	\$68,481	18	\$69,562	21	\$61,746	24	\$66,416	24

2.3 Costs

This section of the report describes the cost data that are collected on the EDC first receiver and shorebased processor form. For the purposes of EDC, costs are divided into two categories, variable costs and fixed costs. Variable costs vary with the level of fish production, and generally include items such as fish inputs, additives, labor, and utilities. Fixed costs do not vary as directly with the level of production, and generally include items such as plant facility costs and processing equipment. The designation of a cost as variable or fixed depends on many factors, including the relevant time horizon and use of the data. While some costs would clearly be considered fixed (e.g., the purchase of processing machinery), others are more difficult to categorize as fixed versus variable. For the purposes of this report, we consider the costs listed in Table 2.7 to be fixed, and the costs listed in Tables 2.8, 2.9, 2.10, 2.11, and all tables listed under Section 2.3.3 to be variable. The EDC Program will continue to explore, and possibly improve, the categorization of these costs.

Finally, there are a variety of costs that are associated with running a first receiver or shorebased processing facility that are not requested on the EDC form. This is because it is difficult to determine the share of the costs associated with the facility. These costs include items that can be used for activities other than processing of fish, or are too difficult to allocate to a particular facility in a multi-facility company. These expenses include trucks, and professional fees. In general, the EDC forms attempt to collect costs that are directly related to facility maintenance and processing operations, and not costs that are related to activities or equipment beyond the processing facility (one exception is off-site product freezing and storage). For these reasons, the EDC aggregated measures of costs (variable costs, fixed costs and total costs) underestimate the true costs of operating a business.

2.3.1 Fixed Costs

Buildings and processing equipment costs

Table 2.7: Buildings and processing equipment costs. Capitalized expenditures, rental or lease payments, processing equipment expenses, repair and maintenance expenses. (N = number of EDC Processors with non-zero, non-NA responses).

Cost	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Capitalized expenditures on buildings	\$473,992	13	\$512,455	13	\$333,591	10	\$184,646	13
Capitalized expenditures on new and used machinery and equipment	\$1,121,078	19	\$1,236,055	18	\$590,296	17	\$299,262	20
Processing equipment	\$34,943	14	\$34,701	16	\$32,752	19	\$50,035	15
Rental or lease of buildings, job-site trailers, and other structures	\$125,225	19	\$125,431	21	\$134,588	23	\$138,127	24
Repair and maintenance on facility buildings, machinery, and equipment	\$249,121	19	\$250,135	20	\$252,563	24	\$257,673	24

2.3.2 Variable Costs

Labor expenses

Labor expenses include wages, bonuses, benefits, payroll taxes, and unemployment insurance.

Table 2.8: Employment expenses. Total annual labor expenses for all employees (includes wages, bonuses, benefits, payroll taxes, and unemployment insurance). (N = number of EDC Processors with non-zero, non-NA responses).

Expense	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Production workers	\$1,647,056	19	\$1,402,191	21	\$1,903,569	24	\$1,982,524	24
Non-production employees	\$486,546	18	\$481,659	21	\$500,361	24	\$531,943	25

Quota costs

Not enough processors reported quota costs to be able to display this information.

Utility expenses

Many respondents did not provide expenses on natural gas, either because they did not incur this expense or because that information was not available. (Table 2.9)

Other expenses

Some new categories were added in 2011 reflecting feedback on the baseline surveys. Thus information on these categories of spending is only available for 2011 onward (Table 2.10).

Custom processing

Custom processing is when a third party processes fish that are owned by the respondent. The processing occurs outside the facility responding to the EDC. (Table 2.11).

Table 2.9: Utility expenses. (N = number of EDC Processors with non-zero, non-NA responses).

Expense	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Electricity	\$187,698:	19	\$180,585:	21	\$183,988:	24	\$216,312:	23
Natural gas	\$85,034:	11	\$78,814:	11	\$31,330:	11	\$33,527:	10
Nitrogen gas	—	—	—	—	***	***	***	***
Propane gas	\$28,054:	15	\$49,778:	17	\$38,555:	21	\$32,350:	21
Water	\$76,613:	19	\$89,340:	21	\$99,451:	24	\$109,222:	24
Sewer, waste, and byproduct disposal	\$40,190:	18	\$41,913:	19	\$53,464:	22	\$72,004:	19

Table 2.10: Other expenses. (N = number of EDC Processors with non-zero, non-NA responses).

Expense	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Cleaning and custodial supplies	—	—	—	—	\$19,233:	20	\$24,192:	21
Freight costs for supplies	\$187,005:	9	\$172,357:	10	\$191,495:	8	\$204,031:	11
Insurance (property, product, and personal liability)	\$153,333:	19	\$136,398:	21	\$79,973:	24	\$73,341:	24
Licensing fees	—	—	—	—	\$13,016:	22	\$13,942:	24
Non-fish ingredients (additives)	\$71,679:	10	\$61,488:	11	\$123,647:	12	\$185,735:	14
Off-site product freezing and storage	\$195,828:	16	\$216,411:	17	\$378,661:	16	\$460,945:	18
Offloading	—	—	—	—	\$59,344:	12	\$98,963:	15
Packing materials	\$660,314:	19	\$526,656:	21	\$540,734:	24	\$514,370:	25
Production supplies	\$120,589:	18	\$122,864:	20	\$56,428:	23	\$72,021:	23
Shoreside monitoring	\$15,101:	12	\$35,150:	13	\$7,305:	16	\$8,773:	16
Taxes (property and excise)	—	—	—	—	\$60,627:	22	\$65,253:	23

Table 2.11: Custom processing. Cost and weight of custom processing activities. (N = number of EDC Processors with non-zero, non-NA responses).

Expense	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Cost of custom processing of whiting	284,151:	3	***	***	***	***	***	***
Cost of custom processing of non-whiting groundfish	432,446:	3	140,182:	3	***	***	***	***
Cost of custom processing of other (non-whiting, non-groundfish)	453,235:	3	326,407:	4	232,185:	4	150,706:	4
Weight of custom processing of whiting	1,290,288:	3	***	***	***	***	***	***
Weight of custom processing of non-whiting groundfish	1,359,927:	3	460,725:	3	***	***	***	***
Weight of custom processing of other (non-whiting, non-groundfish)	2,067,479:	3	1,401,380:	4	988,503:	3	84,518:	3

2.3.3 Fish purchases

Respondents are asked to provide the weight and cost of fish received during the survey year. This includes: 1) the weight of fish paid for; 2) the weight of those not paid for due to size or quality reasons; and 3) the weight of fish not paid for due to intra-company transfers.

The cost of fish from vessel or non-vessel sources includes the value of any taxes paid on behalf of delivering vessels. Purchase weight and cost information is requested by categories for different species types and sources. For catch share species, the fish source categories are: 1) Limited Entry (LE) Trawl; 2) LE Fixed Gear; 3) Other vessels; and 4) Non-vessel sources. For non-catch share species, the fish source categories are: 1) Vessel sources; and 2) Non-vessel sources. LE Trawl represents fish acquired directly from a vessel registered to a LE permit with a trawl endorsement and caught with either trawl or fixed gear. LE Fixed Gear represents fish acquired directly from a vessel with a fixed gear endorsement. This does not include fish caught with a fixed gear on a LE permit with a trawl endorsement, i.e., the gear switching provision of the catch share program, which are included under LE trawl. Other vessels are those without either a LE Trawl or LE Fixed Gear endorsement. Non-vessel sources include fish acquired from other entities, including other first receivers, processors, wholesale dealers, brokers, aquaculture producers, and transfers from outside the facility.

Fish that are not paid for are excluded from the tables in this section. This includes fish recorded as having zero value due to size or quality reasons, as well as fish that are received for custom processing. The tables do include post season adjustments and fish purchased that are then custom processed by another processor outside the facility. As stated in the introduction to this report, respondents fill out the EDC form according to their fiscal year, so pounds listed for each species may not have been purchased during the calendar year indicated by the column header, and therefore these values may not align directly to state-fish ticket data.

2.3.4 Total cost and weight of fish purchases by source and species

Table 2.12: Pacific whiting: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	0	0	0	0	0	0	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	0	0	0	0	0	0
LE Trawl	886,836	69,261	12	1,021,302	85,610	12	2,040,278	226,753	10	1,335,643	188,938	9
Non-vessel	—	—	—	—	—	—	***	***	***	***	***	***
Other	289,457	***	4	65,199	5,561	4	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	***	***	***	***	***	***

Table 2.13: Dover sole: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	169	67	6	***	***	***	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	***	***	***	***	***	***
LE Trawl	234,303	82,044	14	211,602	68,034	13	153,648	65,720	14	144,450	63,990	13
Non-vessel	—	—	—	—	—	—	7,987	4,182	5	18,908	8,595	7
Other	***	***	***	12,498	4,711	4	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	***	***	***	***	***	***

Table 2.14: Sablefish: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	35,762	108,570	10	36,755	116,945	12	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	24,856	99,215	12	21,584	70,785	11
LE Trawl	57,490	120,059	15	44,236	97,109	16	27,905	83,417	15	36,094	85,956	17
Non-vessel	—	—	—	—	—	—	7,505	19,209	4	11,092	36,047	9
Other	10,157	24,353	4	17,054	36,047	5	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	16,287	86,147	7	11,635	48,040	10

Table 2.15: Thornyheads: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	76	59	6	***	***	***	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	1,342	1,371	8	837	1,417	10
LE Trawl	48,042	24,589	13	43,082	23,340	13	26,373	15,654	16	29,811	17,720	15
Non-vessel	—	—	—	—	—	—	623	303	3	4,400	2,362	4
Other	***	***	***	***	***	***	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	43	27	3	561	445	7

Table 2.16: English sole: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	***	***	***	***	***	***	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	0	0	0	0	0	0
LE Trawl	5,054	1,591	11	3,014	962	11	1,452	690	10	2,415	862	14
Non-vessel	—	—	—	—	—	—	***	503	***	489	206	6
Other	***	***	***	***	***	***	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	***	***	***	***	***	***

Table 2.17: Petrale sole: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	***	***	***	***	***	***	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	***	***	***	***	***	***
LE Trawl	37,796	30,028	11	14,396	16,591	13	13,711	19,856	12	21,141	32,279	13
Non-vessel	—	—	—	—	—	—	3,377	5,971	5	4,846	7,718	6
Other	3,985	5,070	4	1,638	2,772	4	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	2	2	3	***	***	***

Table 2.18: Rex sole: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	***	***	***	***	***	***	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	0	0	0	0	0	0
LE Trawl	10,707	3,674	14	9,249	3,064	12	7,337	2,714	13	8,118	3,917	14
Non-vessel	—	—	—	—	—	—	729	763	4	1,465	629	5
Other	***	638	***	902	747	3	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	51	18	3	***	***	***

Table 2.19: Arrowtooth flounder: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	—	—	—	—	—	—	***	***	***	23	3	5
LE Trawl	—	—	—	—	—	—	41,107	4,202	11	42,102	5,298	14
Non-vessel	—	—	—	—	—	—	***	***	***	15,023	2,699	4
Other Vessel	—	—	—	—	—	—	95	10	3	***	***	***

Table 2.20: Lingcod: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	122	101	7	100	83	6	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	34	30	6	75	59	6
LE Trawl	2,361	1,524	15	1,361	924	14	4,566	3,574	17	6,106	4,558	18
Non-vessel	—	—	—	—	—	—	1,559	1,537	6	2,437	2,279	6
Other	836	1,059	3	860	1,004	5	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	124	117	3	798	681	7

Table 2.21: Rockfish: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	1,056	694	6	2,121	1,763	9	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	694	680	9	1,063	1,135	10
LE Trawl	20,628	14,265	18	17,098	8,847	15	28,193	15,169	19	36,150	20,201	18
Non-vessel	—	—	—	—	—	—	20,826	18,102	6	13,150	13,603	6
Other	***	12,834	***	18,717	13,627	5	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	815	753	4	***	8,160	***

Table 2.22: Sanddab: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	—	—	—	—	—	—	0	0	0	0	0	0
LE Trawl	—	—	—	—	—	—	2,845	1,652	8	2,300	1,357	9
Non-vessel	—	—	—	—	—	—	163	145	4	152	109	5
Other Vessel	—	—	—	—	—	—	***	***	***	***	***	***

Table 2.23: Sharks, skates and rays: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	412	90	6	571	155	3	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	224	328	5	528	207	7
LE Trawl	25,275	4,950	12	28,331	7,321	11	25,892	8,032	13	22,861	9,448	14
Non-vessel	—	—	—	—	—	—	***	1,135	***	4,457	2,070	7
Other	***	1,433	***	1,973	1,125	4	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	691	315	5	1,840	609	6

Table 2.24: Crab: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
All	157,388	287,794	15	311,451	578,488	18	—	—	—	—	—	—
Non-vessel	—	—	—	—	—	—	31,351	79,416	8	74,132	219,659	11
Vessel	—	—	—	—	—	—	268,766	647,113	19	212,407	631,461	19

Table 2.25: Shrimp: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
All	261,869	102,169	9	354,908	135,000	11	—	—	—	—	—	—
Non-vessel	—	—	—	—	—	—	66,735	55,000	6	***	56,951	***
Vessel	—	—	—	—	—	—	528,111	257,000	8	519,355	266,610	11

Table 2.26: Coastal pelagics: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
All	476,573	53,763	9	462,444	52,975	8	—	—	—	—	—	—
Non-vessel	—	—	—	—	—	—	3,119	4,583	6	22,358	3,469	5
Vessel	—	—	—	—	—	—	393,676	46,056	11	1,438,992	149,931	9

Table 2.27: Salmon: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
All	47,415	58,453	9	64,431	150,987	13	—	—	—	—	—	—
Non-vessel	—	—	—	—	—	—	32,014	83,040	8	17,871	45,762	9
Vessel	—	—	—	—	—	—	84,133	123,378	18	34,038	100,856	16

Table 2.28: Tuna: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
All	64,646	68,010	10	90,243	112,007	14	—	—	—	—	—	—
Non-vessel	—	—	—	—	—	—	***	32,054	***	***	***	***
Vessel	—	—	—	—	—	—	61,038	121,115	16	113,282	174,597	17

Table 2.29: California halibut: Total purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
All	1,179	5,685	5	1,464	6,820	8	—	—	—	—	—	—
Non-vessel	—	—	—	—	—	—	857	4,977	4	144	650	3
Vessel	—	—	—	—	—	—	1,367	6,357	7	1,075	5,169	7

2.3.5 Mean cost and weight of fish purchases by source and species

Table 2.32: Pacific whiting: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear			0			0						
LE Fixed Gear	—	—	—	—	—	—	—	—	0	—	—	0
LE Trawl	73,903:	5,772:	12	85,108:	7,134:	12	204,028:	22,675:	10	148,405:	20,993:	9
Non-vessel	—	—	—	—	—	—	***	***	***	***	***	***
Other	72,364:	***	4	16,300:	1,112:	4	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	***	***	***	***	***	***

Table 2.33: Dover sole: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	28:	11:	6	***	***	***	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	***	***	***	***	***	***
LE Trawl	16,736:	5,860:	14	16,277:	5,233:	13	10,975:	4,694:	14	11,112:	4,922:	13
Non-vessel	—	—	—	—	—	—	1,597:	836:	5	2,701:	1,228:	7
Other	***	***	***	3,124:	1,178:	4	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	***	***	***	***	***	***

Table 2.34: Sablefish: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	3,576:	10,857:	10	3,063:	9,745:	12	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	2,071:	8,268:	12	1,962:	6,435:	11
LE Trawl	3,833:	8,004:	15	2,765:	6,069:	16	1,860:	5,561:	15	2,123:	5,056:	17
Non-vessel	—	—	—	—	—	—	1,876:	4,802:	4	1,232:	4,005:	9
Other	2,539:	6,088:	4	3,411:	7,209:	5	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	2,327:	14,358:	7	1,164:	4,804:	10

Table 2.35: Thornyheads: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	13:	10:	6	***	***	***	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	168:	171:	8	84:	142:	10
LE Trawl	3,696:	1,891:	13	3,314:	1,795:	13	1,648:	978:	16	1,987:	1,181:	15
Non-vessel	—	—	—	—	—	—	208:	101:	3	1,100:	591:	4
Other	***	***	***	***	***	***	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	14:	9:	3	80:	64:	7

Table 2.36: English sole: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	***	***	***	***	***	***	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	—	—	0	—	—	0
LE Trawl	459:	145:	11	274:	87:	11	145:	69:	10	172:	62:	14
Non-vessel	—	—	—	—	—	—	***	101:	***	81:	41:	6
Other	***	***	***	***	***	***	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	***	***	***	***	***	***

Table 2.37: Petrale sole: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	***	***	***	***	***	***	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	***	***	***	***	***	***
LE Trawl	3,436:	2,730:	11	1,107:	1,276:	13	1,143:	1,655:	12	1,626:	2,483:	13
Non-vessel	—	—	—	—	—	—	675:	1,194:	5	808:	1,286:	6
Other	996:	1,267:	4	409:	693:	4	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	1:	1:	3	***	***	***

Table 2.38: Rex sole: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	***	***	***	***	***	***	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	—	—	0	—	—	0
LE Trawl	765:	262:	14	771:	255:	12	564:	209:	13	580:	280:	14
Non-vessel	—	—	—	—	—	—	182:	191:	4	293:	126:	5
Other	***	213:	***	301:	249:	3	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	17:	6:	3	***	***	***

Table 2.39: Arrowtooth flounder: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	—	—	—	—	—	—	***	***	***	5:	1:	5
LE Trawl	—	—	—	—	—	—	3,737:	382:	11	3,007:	378:	14
Non-vessel	—	—	—	—	—	—	***	***	***	3,756:	675:	4
Other Vessel	—	—	—	—	—	—	32:	3:	3	***	***	***

Table 2.40: Lingcod: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	17:	14:	7	17:	14:	6	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	6:	5:	6	12:	10:	6
LE Trawl	157:	102:	15	97:	66:	14	269:	210:	17	339:	253:	18
Non-vessel	—	—	—	—	—	—	260:	256:	6	406:	380:	6
Other	279:	353:	3	172:	201:	5	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	41:	39:	3	114:	97:	7

Table 2.41: Rockfish: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	176:	116:	6	236:	196:	9	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	77:	76:	9	106:	114:	10
LE Trawl	1,146:	792:	18	1,140:	590:	15	1,484:	798:	19	2,008:	1,122:	18
Non-vessel	—	—	—	—	—	—	3,471:	3,017:	6	2,192:	2,267:	6
Other	***	2,567:	***	3,743:	2,725:	5	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	204:	188:	4	***	1,020:	***

Table 2.42: Sanddab: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	—	—	—	—	—	—	—	—	0	—	—	0
LE Trawl	—	—	—	—	—	—	356:	206:	8	256:	151:	9
Non-vessel	—	—	—	—	—	—	41:	36:	4	30:	22:	5
Other Vessel	—	—	—	—	—	—	***	***	***	***	***	***

Table 2.43: Sharks, skates and rays: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
Fixed Gear	69:	15:	6	190:	52:	3	—	—	—	—	—	—
LE Fixed Gear	—	—	—	—	—	—	45:	66:	5	75:	30:	7
LE Trawl	2,106:	413:	12	2,576:	666:	11	1,992:	618:	13	1,633:	675:	14
Non-vessel	—	—	—	—	—	—	***	284:	***	637:	296:	7
Other	***	478:	***	493:	281:	4	—	—	—	—	—	—
Other Vessel	—	—	—	—	—	—	138:	63:	5	307:	101:	6

Table 2.44: Crab: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
All	10,493:	19,186:	15	17,303:	32,138:	18	—	—	—	—	—	—
Non-vessel	—	—	—	—	—	—	3,919:	9,927:	8	6,739:	19,969:	11
Vessel	—	—	—	—	—	—	14,146:	34,059:	19	11,179:	33,235:	19

Table 2.45: Shrimp: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
All	29,097:	11,352:	9	32,264:	12,273:	11	—	—	—	—	—	—
Non-vessel	—	—	—	—	—	—	11,123:	9,167:	6	***	8,136:	***
Vessel	—	—	—	—	—	—	66,014:	32,125:	8	47,214:	24,237:	11

Table 2.46: Coastal pelagics: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
All	52,953:	5,974:	9	57,805:	6,622:	8	—	—	—	—	—	—
Non-vessel	—	—	—	—	—	—	520:	764:	6	4,472:	694:	5
Vessel	—	—	—	—	—	—	35,789:	4,187:	11	159,888:	16,659:	9

Table 2.47: Salmon: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
All	5,268	5,845	9	4,956	11,614	13	—	—	—	—	—	—
Non-vessel	—	—	—	—	—	—	4,002	10,380	8	1,986	5,085	9
Vessel	—	—	—	—	—	—	4,674	6,854	18	2,127	6,303	16

Table 2.48: Tuna: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
All	6,465:	6,801:	10	6,446:	8,000:	14	—	—	—	—	—	—
Non-vessel	—	—	—	—	—	—	***	6,411:	***	***	***	***
Vessel	—	—	—	—	—	—	3,815:	7,570:	16	6,664:	10,270:	17

Table 2.49: California halibut: Average purchase weight (hundreds of lbs) and cost (hundreds of dollars) by source. (N = number of EDC Processors with non-zero, non-NA responses).

Source	2009			2010			2011			2012		
	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N	Weight	Cost	N
All	236:	1,137:	5	183:	853:	8	—	—	—	—	—	—
Non-vessel	—	—	—	—	—	—	214:	1,244:	4	48:	217:	3
Vessel	—	—	—	—	—	—	195:	908:	7	154:	738:	7

2.4 Depreciation

Depreciation in the following table includes depreciation for all capital investments on buildings and new and used machinery and equipment taken during the survey year. Depreciation is excluded from the calculations of both fixed and variable costs (Section 2.3) and net revenue (Section 2.6). It is collected for use in the IO-PAC model.

Table 2.52: Depreciation (N = number of EDC Processors with non-zero, non-NA responses).

	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Depreciation	\$386,975‡	17	\$306,519‡	19	\$236,575‡	22	\$349,399‡	22

2.5 Revenue

Participants are asked to provide revenue from production of purchased fish as well as from custom processing, and the sale or lease of quota. Beginning with the 2011 form, revenue from offloading fees is also collected.

2.5.1 Revenue from custom processing, offloading, and sale or lease of quota

Participants are asked to provide revenue from a variety of other activities, including revenue from custom processing, sale and lease of quota shares and pounds, and from 2011 onward, offloading. The 2009 and 2010 EDC form did not ask for information regarding offloading fees so these data are not available. Not enough processors reported quota revenue to be able to display this information.

Table 2.53: Other revenue (N = number of EDC Processors with non-zero, non-NA responses).

Revenue Source	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Custom processing of whiting	***	***	***	***	***	***	\$118,719:	4
Custom processing of non-whiting groundfish	***	***	***	***	\$166,019:	4	\$212,913:	5
Custom processing of other (non-whiting, non-groundfish)	\$63,199:	6	\$76,157:	6	\$121,126:	4	\$250,224:	5
Offloading	—	—	—	—	\$115,749:	10	\$64,466:	13

2.5.2 Production activities

The product weight and value from production activities free-on-board (FOB) plant are requested for each survey year. Free-on-board plant indicates that the buyer both takes responsibility and liability for the product and pays shipping costs. These production values exclude freight charges, revenue from products made in previous years, products made from custom processing performed for another company, and any additional payments received that covered shipping, handling, or storage costs associated with sale beyond the plant. The total value of fish production does include products made in that survey year and held in inventory at the end of the year, products shipped to other facilities in the same company, products made from custom processing performed by another facility, and any post-season adjustments.

The same species categories are provided as in the fish purchase section, this time divided into product categories that include processed fresh, frozen, unprocessed, and other, as well as additional categories for whiting. There is also a category for non-species specific products such as fishmeal, fish oil, and bait.

2.5.3 Total value and weight of fish production by product type and species

Table 2.54: Pacific whiting: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fillet	54,019	59,138	3	82,036	96,337	4	187,356	122,030	3	68,745	68,662	3
Frozen	***	***	***	37,531	12,523	4	311,854	90,636	6	78,237	41,235	6
H&G	603,552	339,776	9	295,112	167,287	9	400,671	240,410	8	402,165	264,844	7
Roe	0	0	0	0	0	0	0	0	0	0	0	0
Surimi	***	***	***	***	***	***	***	***	***	***	***	***
Unprocessed	***	***	***	6,432	720	5	95,991	***	3	106,204	***	3
Other	54,506	***	3	***	***	***	364,580	186,318	5	60,703	32,172	4

Table 2.55: Dover sole: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	63,851	143,096	12	55,536	138,122	12	36,070	120,146	11	36,311	126,875	12
Frozen	12,699	27,242	10	12,667	19,901	11	6,053	16,094	10	9,966	24,994	10
Unprocessed	520	272	5	6,714	2,863	7	11,450	3,384	8	19,149	4,040	10
Other	***	***	***	***	***	***	0	0	0	***	***	***

Table 2.56: Sablefish: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	12,332	50,176	11	12,692	65,830	14	16,361	52,263	12	6,722	34,255	13
Frozen	55,277	271,145	11	55,994	301,307	13	42,310	303,057	12	47,138	261,924	13
Unprocessed	5,605	15,736	3	6,732	19,653	4	4,545	18,360	9	7,162	19,210	10
Other	***	***	***	***	***	***	0	0	0	675	3,644	4

Table 2.57: Thornyheads: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	1,937	2,326	5	3,162	3,663	7	***	***	***	***	***	***
Frozen	17,973	42,158	7	20,343	45,064	7	11,314	38,626	8	13,876	50,553	9
Unprocessed	849	1,044	3	2,850	1,928	4	5,181	4,755	9	6,791	6,093	10
Other	0	0	0	***	***	***	***	***	***	***	***	***

Table 2.58: English sole: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	2,106	4,487	11	1,041	2,329	11	697	2,222	9	911	3,084	9
Frozen	809	981	6	434	471	4	156	382	5	611	674	8
Unprocessed	217	145	3	226	99	5	213	102	6	342	148	9
Other	0	0	0	0	0	0	0	0	0	0	0	0

Table 2.59: Petrale sole: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	14,468	49,962	11	4,644	18,441	14	4,330	23,794	11	7,393	38,741	10
Frozen	2,066	6,333	7	1,011	3,034	8	854	3,577	6	1,042	4,329	7
Unprocessed	8,045	12,251	7	3,238	5,982	6	4,560	10,144	11	7,206	17,419	13
Other	0	0	0	0	0	0	***	***	***	0	0	0

Table 2.60: Rex sole: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	3,744	6,091	11	1,819	3,634	9	2,220	4,777	9	1,827	4,540	8
Frozen	2,654	3,984	7	3,247	4,119	6	1,633	2,656	7	2,024	3,850	8
Unprocessed	448	324	6	424	210	6	567	286	8	955	610	7
Other	0	0	0	***	***	***	0	0	0	***	***	***

Table 2.61: Arrowtooth flounder: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	—	—	—	—	—	—	7,238	8,117	8	5,676	5,961	9
Frozen	—	—	—	—	—	—	***	8,454	***	13,943	12,066	9
Unprocessed	—	—	—	—	—	—	***	***	***	5,318	779	7
Other	—	—	—	—	—	—	0	0	0	***	***	***

Table 2.62: Lingcod: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	909	3,416	13	706	2,960	13	1,904	7,579	8	3,111	12,160	10
Frozen	100	597	5	250	508	5	561	1,928	6	374	1,312	6
Unprocessed	784	975	6	411	674	6	492	1,279	10	860	1,885	12
Other	***	***	***	***	***	***	***	***	***	***	***	***

Table 2.63: Rockfish: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	11,256	30,422	16	9,699	25,847	16	10,772	30,317	12	13,603	42,787	11
Frozen	3,773	7,493	8	2,168	4,041	8	3,285	6,023	8	4,383	8,544	10
Unprocessed	3,452	4,192	7	5,072	5,396	7	11,629	13,973	14	12,528	11,988	14
Other	***	***	***	0	0	0	1,621	2,908	3	***	***	***

Table 2.64: Sanddab: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	—	—	—	—	—	—	97	449	5	237	1,218	6
Frozen	—	—	—	—	—	—	691	2,199	7	407	1,891	7
Unprocessed	—	—	—	—	—	—	1,388	1,401	5	802	1,018	9
Other	—	—	—	—	—	—	***	***	***	***	***	***

Table 2.65: Sharks, skates and rays: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	1,838	2,166	8	351	580	10	318	891	6	1,089	693	5
Frozen	11,296	15,203	8	9,099	16,907	6	9,258	19,197	8	8,806	23,371	9
Unprocessed	***	***	***	4,211	2,224	4	7,218	5,133	9	6,038	3,464	10
Other	***	***	***	0	0	0	***	***	***	0	0	0

Table 2.66: Crab: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Canned	***	***	***	***	***	***	***	***	***	***	***	***
Fresh	56,521	231,212	13	97,635	345,984	16	60,411	342,387	15	51,158	343,335	15
Frozen	58,970	293,675	13	117,445	497,747	15	109,316	626,288	16	116,610	751,954	16
Unprocessed	4,261	9,483	5	4,744	10,613	4	17,225	45,351	8	42,734	125,173	11
Other	***	36,396	***	***	***	***	***	***	***	427	5,421	3

Table 2.67: Shrimp: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Canned	0	0	0	0	0	0	***	***	***	***	***	***
Fresh	30,190	46,139	7	24,692	34,653	7	11,781	36,415	6	12,345	39,203	5
Frozen	67,565	191,119	7	97,868	191,568	9	177,372	530,801	10	189,148	562,540	12
Unprocessed	***	***	***	***	***	***	39,885	35,746	4	***	***	***
Other	0	0	0	***	***	***	0	0	0	0	0	0

Table 2.68: Coastal pelagics: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Canned	—	—	—	—	—	—	0	0	0	0	0	0
Fresh	21,233	7,014	3	766	***	3	***	12,666	***	***	***	***
Frozen	149,427	61,256	7	131,402	47,984	7	357,013	116,710	10	1,153,060	366,169	10
Unprocessed	***	***	***	***	***	***	289	744	3	***	***	***
Other	253,965	59,890	3	276,594	64,802	3	***	***	***	0	0	0

Table 2.69: Salmon: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Canned	***	***	***	***	***	***	***	***	***	***	***	***
Fresh	19,571	67,792	7	24,435	106,203	11	34,796	148,404	14	16,312	87,039	10
Frozen	***	***	***	23,344	66,933	9	43,735	93,734	12	13,092	33,877	11
Smoked	***	***	***	***	***	***	***	***	***	***	***	***
Unprocessed	2,513	8,757	3	4,030	16,303	5	16,145	36,785	10	14,192	83,171	12
Other	***	***	***	***	***	***	0	0	0	0	0	0

Table 2.70: Tuna: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Canned	***	***	***	***	***	***	***	***	***	***	***	***
Fresh	1,892	6,328	5	1,566	6,340	8	1,488	6,667	4	1,842	4,945	6
Frozen	79,352	113,395	9	67,260	116,490	12	61,577	161,769	13	112,192	204,911	12
Unprocessed	***	***	***	2,917	4,623	4	17,093	35,650	11	11,800	19,759	8
Other	***	***	***	***	***	***	0	0	0	***	***	***

Table 2.71: California halibut: Total production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	***	***	***	973	8,338	6	411	4,232	5	22	172	3
Frozen	***	***	***	***	***	***	***	***	***	***	***	***
Unprocessed	974	5,044	4	***	***	***	1,474	8,616	6	1,186	6,758	6
Other	0	0	0	***	***	***	0	0	0	0	0	0

2.5.4 Average value and weight of fish production by product type and species

Table 2.74: Pacific whiting: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fillet	18,006:	19,713:	3	20,509:	24,084:	4	62,452:	40,677:	3	22,915:	22,887:	3
Frozen	***	***	***	9,383:	3,131:	4	51,976:	15,106:	6	13,039:	6,873:	6
H&G	67,061:	37,753:	9	32,790:	18,587:	9	50,084:	30,051:	8	57,452:	37,835:	7
Roe			0			0			0			0
Surimi	***	***	***	***	***	***	***	***	***	***	***	***
Unprocessed	***	***	***	1,286:	180:	5	31,997:	***	3	35,401:	***	3
Other	18,169:	***	3	***	***	***	72,916:	37,264:	5	15,176:	8,043:	4

Table 2.75: Dover sole: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	5,321:	11,925:	12	4,628:	11,510:	12	3,279:	10,922:	11	3,026:	10,573:	12
Frozen	1,270:	2,724:	10	1,152:	1,809:	11	605:	1,609:	10	997:	2,499:	10
Unprocessed	104:	54:	5	959:	409:	7	1,431:	423:	8	1,915:	505:	10
Other	***	***	***	***	***	***	***	***	0	***	***	***

Table 2.76: Sablefish: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	1,121:	4,561:	11	907:	4,702:	14	1,363:	4,355:	12	517:	2,635:	13
Frozen	5,025:	24,650:	11	4,307:	23,177:	13	3,526:	25,255:	12	3,626:	20,148:	13
Unprocessed	1,868:	5,245:	3	1,683:	4,913:	4	505:	2,040:	9	716:	2,134:	10
Other	***	***	***	***	***	***			0	169:	911:	4

Table 2.77: Thornyheads: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	387:	465:	5	452:	523:	7	***	***	***	***	***	***
Frozen	2,568:	6,023:	7	2,906:	6,438:	7	1,414:	4,828:	8	1,542:	5,617:	9
Unprocessed	283:	348:	3	713:	482:	4	576:	528:	9	679:	677:	10
Other			0	***	***	***	***	***	***	***	***	***

Table 2.78: English sole: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	191:	408:	11	95:	212:	11	77:	247:	9	101:	343:	9
Frozen	135:	164:	6	108:	118:	4	31:	76:	5	76:	84:	8
Unprocessed	72:	48:	3	45:	20:	5	36:	17:	6	38:	19:	9
Other			0			0			0			0

Table 2.79: Petrale sole: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	1,315:	4,542:	11	332:	1,317:	14	394:	2,163:	11	739:	3,874:	10
Frozen	295:	905:	7	126:	379:	8	142:	596:	6	149:	618:	7
Unprocessed	1,149:	1,750:	7	540:	997:	6	415:	922:	11	554:	1,340:	13
Other			0			0	***	***	***			0

Table 2.80: Rex sole: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	340:	554:	11	202:	404:	9	247:	531:	9	228:	568:	8
Frozen	379:	569:	7	541:	686:	6	233:	379:	7	253:	481:	8
Unprocessed	75:	54:	6	71:	35:	6	71:	36:	8	136:	102:	7
Other			0	***	***	***			0	***	***	***

Table 2.81: Arrowtooth flounder: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	—	—	—	—	—	—	905:	1,015:	8	631:	662:	9
Frozen	—	—	—	—	—	—	***	1,208:	***	1,549:	1,341:	9
Unprocessed	—	—	—	—	—	—	***	***	***	760:	156:	7
Other	—	—	—	—	—	—			0	***	***	***

Table 2.82: Lingcod: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	70:	263:	13	54:	228:	13	238:	947:	8	311:	1,216:	10
Frozen	20:	119:	5	50:	102:	5	94:	321:	6	62:	219:	6
Unprocessed	131:	162:	6	68:	112:	6	49:	128:	10	72:	171:	12
Other	***	***	***	***	***	***	***	***	***	***	***	***

Table 2.83: Rockfish: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	704:	1,901:	16	606:	1,615:	16	898:	2,526:	12	1,237:	3,890:	11
Frozen	472:	937:	8	271:	505:	8	411:	753:	8	438:	854:	10
Unprocessed	493:	599:	7	725:	771:	7	831:	998:	14	895:	856:	14
Other	***	***	***			0	540:	969:	3	***	***	***

Table 2.84: Sanddab: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	—	—	—	—	—	—	19:	90:	5	39:	203:	6
Frozen	—	—	—	—	—	—	99:	314:	7	58:	270:	7
Unprocessed	—	—	—	—	—	—	278:	280:	5	89:	113:	9
Other	—	—	—	—	—	—	***	***	***	***	***	***

Table 2.85: Sharks, skates and rays: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	230:	271:	8	35:	58:	10	53:	148:	6	218:	139:	5
Frozen	1,412:	1,900:	8	1,517:	2,818:	6	1,157:	2,400:	8	978:	2,597:	9
Unprocessed	***	***	***	1,053:	556:	4	802:	642:	9	604:	385:	10
Other	***	***	***			0	***	***	***			0

Table 2.86: Crab: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Canned	***	***	***	***	***	***	***	***	***	***	***	***
Fresh	4,348:	17,786:	13	6,102:	21,624:	16	4,027:	22,826:	15	3,411:	22,889:	15
Frozen	4,536:	22,590:	13	7,830:	33,183:	15	6,832:	39,143:	16	7,288:	46,997:	16
Unprocessed	852:	1,897:	5	1,186:	2,653:	4	2,153:	5,669:	8	3,885:	11,379:	11
Other	***	12,132:	***	***	***	***	***	***	***	142:	1,807:	3

Table 2.87: Shrimp: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Canned			0			0	***	***	***	***	***	***
Fresh	4,313:	6,591:	7	3,527:	4,950:	7	1,964:	6,069:	6	2,469:	7,841:	5
Frozen	9,652:	27,303:	7	10,874:	21,285:	9	17,737:	53,080:	10	15,762:	46,878:	12
Unprocessed	***	***	***	***	***	***	9,971:	8,937:	4	***	***	***
Other			0	***	***	***			0			0

Table 2.88: Coastal pelagics: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Canned	—	—	—	—	—	—	—	—	0	—	—	0
Fresh	7,078:	2,338:	3	255:	***	3	***	4,222:	***	***	***	***
Frozen	21,347:	8,751:	7	18,772:	6,855:	7	35,701:	11,671:	10	115,306:	36,617:	10
Unprocessed	***	***	***	***	***	***	96:	248:	3	***	***	***
Other	84,655:	19,963:	3	92,198:	21,601:	3	***	***	***	—	—	0

Table 2.89: Salmon: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Canned	***	***	***	***	***	***	***	***	***	***	***	***
Fresh	2,796:	9,685:	7	2,221:	9,655:	11	2,485:	11,416:	14	1,631:	8,704:	10
Frozen	***	***	***	2,594:	7,437:	9	3,645:	7,811:	12	1,190:	3,080:	11
Smoked	***	***	***	***	***	***	***	***	***	***	***	***
Unprocessed	838:	2,919:	3	806:	3,261:	5	1,614:	3,678:	10	1,183:	7,561:	12
Other	***	***	***	***	***	***			0			0

Table 2.90: Tuna: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Canned	***	***	***	***	***	***	***	***	***	***	***	***
Fresh	378:	1,266:	5	196:	792:	8	372:	1,667:	4	307:	824:	6
Frozen	8,817:	12,599:	9	5,605:	9,707:	12	4,737:	12,444:	13	9,349:	17,076:	12
Unprocessed	***	***	***	729:	1,156:	4	1,554:	3,241:	11	1,475:	2,470:	8
Other	***	***	***	***	***	***			0	***	***	***

Table 2.91: California halibut: Average production weight (hundreds of lbs) and value (hundreds of dollars) by product type. (N = number of EDC Processors with non-zero, non-NA responses).

Product	2009			2010			2011			2012		
	Weight	Value	N	Weight	Value	N	Weight	Value	N	Weight	Value	N
Fresh	***	***	***	162:	1,390:	6	82:	846:	5	7:	57:	3
Frozen	***	***	***	***	***	***	***	***	***	***	***	***
Unprocessed	244:	1,261:	4	***	***	***	246:	1,436:	6	198:	1,126:	6
Other			0	***	***	***			0			0

2.6 Net Revenue and Economic Profit

Net returns from operating a first receiver and shorebased processor are presented in this section. The level of net returns not only indicates whether an operation is a viable ongoing business, but also the size of net benefit that is created from society's perspective. Two different measures of net returns are examined. They differ in the types of costs that are taken into account, and therefore, their interpretation and use. The first is a monetary, financial measure that attempts to track a first receiver or shorebased processor's net cash flow, which we call *net revenue*. It is calculated as revenue minus monetary costs. The only costs that are included are those that are actually paid or associated with a financial transaction. The second measure attempts to track the broader economic performance of a business and includes all costs regardless of whether there is a cash or financial transaction. Costs are measured by their true resource costs, which may or may not be equal to monetary outlays. This measure is called *economic profit*¹.

One difference between net revenue and economic profit is the treatment of facility capital costs. Net revenue only includes costs that are actually paid, which includes items such as facility repair, maintenance, and upgrades. Economic profit would also include the opportunity cost of owning the facility, a capital asset. By owning a facility, the owner foregoes other investment opportunities that would provide a rate of return. This is called the opportunity cost of capital², and is typically approximated by the market rate of return associated with businesses of comparable risk, multiplied by the market value of the facility.

Both net revenue and economic profit are useful measures for fishery management. Net revenue attempts to measure the annual financial well-being of receiving/processing operations. It can be used to determine if there is a monetary gain or loss, or how changes in fishery management may affect the level of monetary gain or loss. Economic profit is a better indicator of the long-term viability of fishery operations since it includes all costs, and values the costs at their opportunity cost. It can be used to estimate whether there are incentives or disincentives to invest in capital, or enter and leave the fishery. It is also a better measure of the net benefit of the fishery to the nation.

Calculations of net revenue are included in this report. The cost categories used in net revenue, based on those reported in the EDC forms, are discussed below. Currently, calculations of economic profit are beyond the scope of the report. Economic profit relies on opportunity costs, which may be different from some of the costs reported on the EDC forms, so additional methods and analyses are required. The EDC Program economists will continue to work on developing measures of economic profit so that it may be included in future reports.

¹ Whitmarsh D., James C., Pickering H., Neiland A. 2000. The profitability of marine commercial fisheries: a review of economic information needs with particular reference to the UK. *Marine Policy*, Vol. 24(3), pp. 257-263

² See Boardman, Anthony, David Greenberg, and Aidan Vining. *Cost-Benefit Analysis: Concepts and Practice*, Prentice Hall, NJ. 2000. pp. 31-32.

2.6.1 Net revenue

Net revenue is calculated two ways: using only variable costs, and using variable costs plus fixed costs (total costs)³. The first calculation is called *variable cost net revenue*, while the second is called *total cost net revenue*. Variable cost net revenue is useful to examine changes in fishery operations that are not so great as to affect fixed costs. For example, the cost of processing an additional metric ton of fish is better represented by only considering variable costs. Total cost net revenue is usually a better summary measure of financial gain or loss for an entire year, season, or fishery.

There are several caveats associated with the net revenue calculations in this report. As noted in the Section 2.3, there are a variety of costs that are associated with running a facility that are not requested by the EDC form because it is difficult to determine the share of the cost associated with the facility. These costs include items that can be used for activities other than processing fish, or are too difficult to allocate to a particular facility in a multi-facility company. These expenses include office space, vehicles and transport trucks, storage of equipment, and professional fees. In general, the EDC forms attempt to only capture costs that are directly related to facility maintenance and processing operations, and not costs that are related to activities or equipment outside of the facility. Therefore, the EDC calculated net revenue is an overestimate of the true net revenue. The difference is likely much greater for total cost net revenue than variable cost net revenue since most of the excluded costs are fixed costs.

Another caveat is that the EDC forms do not collect information about income taxes or financing costs. This has several implications. The first is that these costs are not included in the net revenue calculations. Therefore, net revenue is greater than it would be otherwise. The second is that in lieu of financing information (principal and interest payments), EDC total cost net revenue uses the total costs associated with facility and equipment purchases, repair, maintenance and improvements. For example, if a processing machine is purchased, the total cost of the machine is used, even though the actual cash outlay, if it were financed, would only be the principal and interest payments made that year. It is likely that many larger capital costs, and perhaps some operating costs, are financed. This would mean that the actual cash outlays in a particular year for those items would be less than what is used in the EDC for the net revenue calculation. Over time, this may balance out to some degree because previously financed or purchased capital and equipment are also not included, except for the year in which they are purchased.⁴ Moreover, total cost net revenue is expected to be representative of actual total cost net revenue only when averaged over many years and across facilities because relatively large capital costs occur periodically.

2.6.2 Net revenue for all operations (IFQ and non-IFQ fish)

Average net revenue is calculated for all companies that reported processing activity of groundfish in 2009 and 2010 and all companies that reported processing activity of any kind for 2011 onward.

³ See Section 2.3 for a more complete discussion of variable and fixed costs used in this report

⁴ At best it is just a partial balancing out because the interest payments are not accounted in the EDC data

Revenue includes the total value of production and revenue from custom processing and offloading.

The variable and fixed costs do not include costs related to acquiring quota shares or quota pounds.

$$\text{Variable cost net revenue} = \text{Revenue} - \text{Variable costs}$$

$$\text{Total cost net revenue} = \text{Revenue} - (\text{Variable costs} + \text{Fixed costs})$$

Table 2.94: Revenue, costs, and net revenue. (N = number of EDC Processors with non-zero, non-NA responses).

Expense	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Revenue	\$13,622,628	19	\$13,494,632	21	\$16,885,551	24	\$17,700,568	25
(Variable costs)	\$10,614,894	19	\$11,568,406	21	\$13,889,113	24	\$14,627,945	25
Variable cost net revenue	\$3,007,734	19	\$1,926,226	21	\$2,996,438	24	\$3,072,622	25
(Fixed costs)	\$1,950,282	19	\$1,911,510	21	\$1,039,670	24	\$878,738	25
Total cost net revenue	\$1,057,452	19	\$14,716	21	\$1,956,768	24	\$2,193,884	25

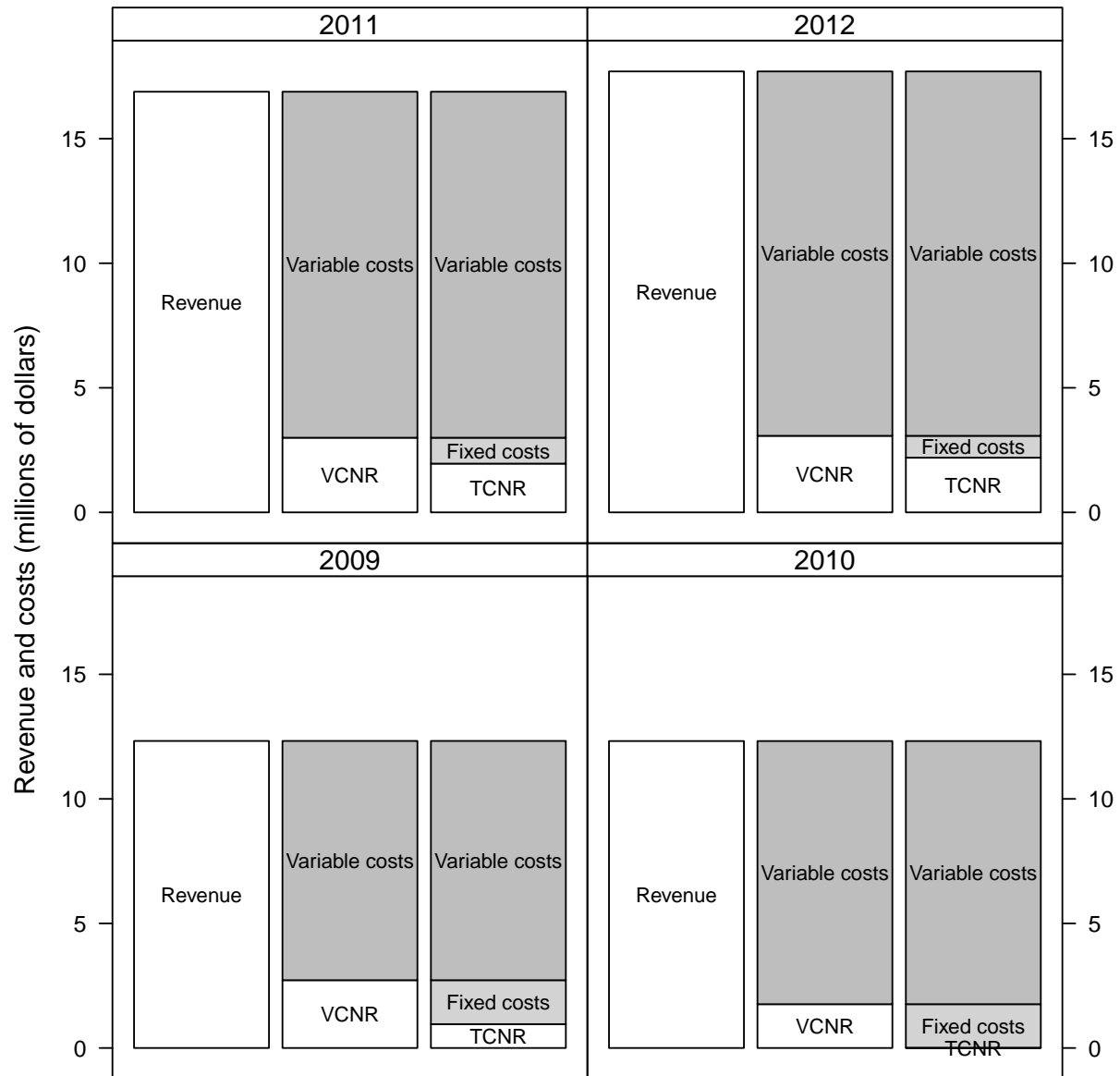


Figure 2.1: EDC Processor average variable cost and total cost net revenue. Average total revenue, variable costs, variable cost net revenue (VCNR), fixed costs, and total cost net revenue on the West Coast (TCNR). Fixed costs include capitalized expenditures, capital expenses, and other fixed costs.

2.6.3 Total cost net revenue rates

The total cost net revenue calculated above in Section 2.6.2 are provided as rates in the following table to provide the total cost net revenue per pound of fish purchased and per pound of fish product produced. The total weights used in these calculations exclude custom processing activities (see Sections 2.3.3 and 2.5.2). Additionally, the same rates are calculated for variable cost net revenue and the components that are used to calculate the two.

Table 2.95: Revenue, costs, and total and variable cost net revenue by pounds produced and pounds of fish purchased (N = number of EDC Processors with non-zero, non-NA responses).

Expense	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Revenue per production pounds	\$1.930	21	\$2.019	23	\$3.472	24	\$3.044	25
Revenue per purchase pounds	\$1.417	21	\$1.462	23	\$1.610	24	\$1.546	25
Variable cost per production pounds	\$1.613	21	\$1.823	23	\$2.655	24	\$2.547	25
Variable cost per purchase pounds	\$1.207	21	\$1.307	23	\$1.408	24	\$1.405	25
Variable cost net revenue per production pounds	\$0.316	21	\$0.196	23	\$0.817	24	\$0.498	25
Variable cost net revenue per purchase pounds	\$0.210	21	\$0.155	23	\$0.202	24	\$0.141	25
Fixed cost per production pounds	\$0.209	21	\$0.157	23	\$0.190	24	\$0.160	25
Fixed cost per purchase pounds	\$0.170	21	\$0.106	23	\$0.069	24	\$0.070	25
Total cost net revenue per production pounds	\$0.108	21	\$0.039	23	\$0.627	24	\$0.338	25
Total cost net revenue per purchase pounds	\$0.040	21	\$0.049	23	\$0.133	24	\$0.071	25

2.7 Cost Per Pound of Fish Purchases

2.7.1 Mean fish purchase cost per pound by source

The mean cost per pound of fish inputs by species e and source of fish s is

$$\frac{\sum_{n=1}^N \frac{C_{n,e,s}}{WT_{n,e,s}^{fishinputs}}}{N} \quad \forall e, s$$

where C is the cost of fish inputs, $WT^{fishinputs}$ is the weight of fish inputs, and N is the total number of processors with non-zero, non-NA responses. The mean cost per pound of fish by species and source of fish is calculated for each survey year.

Table 2.96: Mean fish cost per pound: whiting, dover sole, thornyheads, sablefish.

Species: Source	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Dover sole: Fixed Gear	\$0.38 ⁺	6	\$0.32 ⁺	4	—	—	—	—
Dover sole: LE Fixed Gear	—	—	—	—	***	***	\$0.85 ⁺	7
Dover sole: LE Trawl	\$0.53 ⁺	14	\$0.31 ⁺	13	\$0.43 ⁺	14	\$0.65 ⁺	13
Dover sole: Non-vessel	—	—	—	—	\$1.75 ⁺	5	\$1.37 ⁺	7
Dover sole: Other	\$1.20 ⁺	4	\$1.12 ⁺	4	—	—	—	—
Dover sole: Other Vessel	—	—	—	—	\$0.42 ⁺	3	\$0.42 ⁺	6
Pacific whiting: LE Trawl	\$0.07 ⁺	12	\$0.08 ⁺	12	\$0.11 ⁺	10	\$0.14 ⁺	9
Pacific whiting: Non-vessel	—	—	—	—	***	***	\$0.54 ⁺	4
Pacific whiting: Other	\$0.11 ⁺	4	\$0.13 ⁺	4	—	—	—	—
Pacific whiting: Other Vessel	—	—	—	—	***	***	***	***
Sablefish: Fixed Gear	\$3.10 ⁺	10	\$3.27 ⁺	12	—	—	—	—
Sablefish: LE Fixed Gear	—	—	—	—	\$4.14 ⁺	12	\$3.35 ⁺	11
Sablefish: LE Trawl	\$1.90 ⁺	15	\$2.04 ⁺	16	\$2.45 ⁺	15	\$2.42 ⁺	17
Sablefish: Non-vessel	—	—	—	—	\$3.68 ⁺	4	\$4.05 ⁺	9
Sablefish: Other	\$6.16 ⁺	4	\$3.12 ⁺	5	—	—	—	—
Sablefish: Other Vessel	—	—	—	—	\$4.79 ⁺	6	\$3.82 ⁺	10
Thornyheads: Fixed Gear	\$0.77 ⁺	6	\$0.89 ⁺	9	—	—	—	—
Thornyheads: LE Fixed Gear	—	—	—	—	\$0.98 ⁺	8	\$1.23 ⁺	10
Thornyheads: LE Trawl	\$0.67 ⁺	13	\$0.51 ⁺	13	\$0.54 ⁺	16	\$0.60 ⁺	15
Thornyheads: Non-vessel	—	—	—	—	\$0.49 ⁺	3	\$0.54 ⁺	4
Thornyheads: Other	***	***	***	***	—	—	—	—
Thornyheads: Other Vessel	—	—	—	—	\$0.74 ⁺	3	\$0.62 ⁺	7

Table 2.97: Mean fish cost per pound: other groundfish.

Species: Source	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Arrowtooth flounder: LE Fixed Gear	—	—	—	—	\$0.12 [*]	4	\$0.31 [‡]	5
Arrowtooth flounder: LE Trawl	—	—	—	—	\$0.10 [*]	11	\$0.17 [‡]	14
Arrowtooth flounder: Non-vessel	—	—	—	—	***	***	\$0.17 [*]	4
Arrowtooth flounder: Other Vessel	—	—	—	—	\$0.11 [*]	3	\$0.28 [‡]	5
Lingcod: Fixed Gear	\$0.71 [*]	7	\$0.81 [*]	6	—	—	—	—
Lingcod: LE Fixed Gear	—	—	—	—	\$1.07 [‡]	6	\$0.79 [*]	6
Lingcod: LE Trawl	\$0.65 [*]	15	\$0.72 [*]	14	\$0.81 [‡]	17	\$0.94 [‡]	18
Lingcod: Non-vessel	—	—	—	—	\$1.99 [‡]	6	\$1.43 [‡]	6
Lingcod: Other	\$3.19 [‡]	3	\$2.07 [‡]	5	—	—	—	—
Lingcod: Other Vessel	—	—	—	—	\$0.89 [*]	3	\$0.88 [*]	7
Rockfish: Fixed Gear	\$0.66 [*]	6	\$0.87 [‡]	9	—	—	—	—
Rockfish: LE Fixed Gear	—	—	—	—	\$1.00 [*]	9	\$0.79 [‡]	10
Rockfish: LE Trawl	\$0.56 [‡]	18	\$0.53 [*]	15	\$0.62 [*]	19	\$0.58 [*]	18
Rockfish: Non-vessel	—	—	—	—	\$1.19 [‡]	6	\$1.70 [‡]	6
Rockfish: Other	\$1.66 [‡]	5	\$1.36 [‡]	5	—	—	—	—
Rockfish: Other Vessel	—	—	—	—	\$0.74 [*]	4	\$1.43 [‡]	8
Sanddab: LE Trawl	—	—	—	—	\$0.60 [*]	8	\$0.61 [*]	9
Sanddab: Non-vessel	—	—	—	—	\$2.05 [‡]	4	\$0.88 [‡]	5
Sanddab: Other Vessel	—	—	—	—	***	***	***	***

Table 2.98: Mean fish cost per pound: other groundfish (cont.).

Species: Source	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
English sole: Fixed Gear	***	***	***	***	—	—	—	—
English sole: LE Trawl	\$0.70 [‡]	11	\$0.37 [•]	11	\$0.47 [•]	10	\$0.50 [‡]	14
English sole: Non-vessel	—	—	—	—	\$1.78 [‡]	5	\$1.09 [‡]	5
English sole: Other	\$1.51 [‡]	3	\$1.15 [‡]	4	—	—	—	—
English sole: Other Vessel	—	—	—	—	***	***	\$0.33 [•]	3
Petrable sole: Fixed Gear	\$1.07 [•]	4	\$1.24 [•]	5	—	—	—	—
Petrable sole: LE Fixed Gear	—	—	—	—	***	***	\$1.47 [•]	5
Petrable sole: LE Trawl	\$1.00 [•]	11	\$1.09 [•]	13	\$1.48 [•]	12	\$1.54 [•]	13
Petrable sole: Non-vessel	—	—	—	—	\$3.01 [‡]	5	\$2.04 [•]	6
Petrable sole: Other	\$2.90 [‡]	4	\$2.86 [‡]	4	—	—	—	—
Petrable sole: Other Vessel	—	—	—	—	\$1.41 [•]	3	\$1.85 [•]	5
Rex sole: Fixed Gear	***	***	***	***	—	—	—	—
Rex sole: LE Trawl	\$0.38 [•]	14	\$0.37 [•]	12	\$0.45 [•]	13	\$0.63 [‡]	14
Rex sole: Non-vessel	—	—	—	—	\$1.36 [•]	4	\$1.75 [‡]	5
Rex sole: Other	\$3.29 [‡]	3	\$2.07 [‡]	3	—	—	—	—
Rex sole: Other Vessel	—	—	—	—	\$0.58 [‡]	3	\$0.37 [•]	3
Sharks, skates and rays: Fixed Gear	\$0.16 [•]	6	\$0.23 [•]	3	—	—	—	—
Sharks, skates and rays: LE Fixed Gear	—	—	—	—	\$0.92 [‡]	5	\$0.38 [•]	7
Sharks, skates and rays: LE Trawl	\$0.22 [‡]	12	\$0.28 [‡]	11	\$0.31 [‡]	13	\$0.39 [•]	14
Sharks, skates and rays: Non-vessel	—	—	—	—	\$1.23 [‡]	4	\$0.65 [‡]	7
Sharks, skates and rays: Other	\$2.16 [‡]	3	\$1.32 [‡]	4	—	—	—	—
Sharks, skates and rays: Other Vessel	—	—	—	—	\$0.67 [‡]	5	\$0.41 [‡]	6

Table 2.99: Mean fish cost per pound: non-groundfish.

Species: Source	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Coastal pelagics: All	\$0.68 [‡]	9	\$0.83 [‡]	8	—	—	—	—
Coastal pelagics: Non-vessel	—	—	—	—	\$1.21 [‡]	6	\$0.27 [‡]	5
Coastal pelagics: Vessel	—	—	—	—	\$0.45 [‡]	11	\$0.10 [‡]	9
Crab: All	\$2.55 [‡]	15	\$2.30 [‡]	18	—	—	—	—
Crab: Non-vessel	—	—	—	—	\$4.07 [‡]	8	\$4.64 [‡]	11
Crab: Vessel	—	—	—	—	\$2.44 [‡]	19	\$2.95 [‡]	19
Salmon: All	\$2.94 [‡]	9	\$4.12 [‡]	13	—	—	—	—
Salmon: Non-vessel	—	—	—	—	\$3.63 [‡]	8	\$3.32 [‡]	9
Salmon: Vessel	—	—	—	—	\$4.47 [‡]	18	\$4.71 [‡]	16
Shrimp: All	\$1.57 [‡]	9	\$1.96 [‡]	11	—	—	—	—
Shrimp: Non-vessel	—	—	—	—	\$3.66 [‡]	6	\$3.19 [‡]	7
Shrimp: Vessel	—	—	—	—	\$0.47 [‡]	8	\$1.09 [‡]	11
Tuna: All	\$1.48 [‡]	10	\$1.55 [‡]	14	—	—	—	—
Tuna: Non-vessel	—	—	—	—	\$3.41 [‡]	5	\$3.11 [‡]	5
Tuna: Vessel	—	—	—	—	\$1.92 [‡]	16	\$1.69 [‡]	17

Table 2.100: Mean fish cost per pound: non-groundfish (cont.).

Species: Source	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
California halibut: All	\$4.95 ⁺	5	\$4.25 ⁺	8	—	—	—	—
California halibut: Non-vessel	—	—	—	—	\$4.85 ⁺	4	\$6.99 ⁺	3
California halibut: Vessel	—	—	—	—	\$4.81 ⁺	7	\$4.74 ⁺	7
Other species: All	\$0.56 ⁺	14	\$0.48 ⁺	14	—	—	—	—
Other species: Non-vessel	—	—	—	—	\$0.51 ⁺	3	\$0.69 ⁺	12
Other species: Vessel	—	—	—	—	\$0.49 ⁺	15	***	***
Pacific halibut: All	\$4.19 ⁺	6	\$5.32 ⁺	8	—	—	—	—
Pacific halibut: Non-vessel	—	—	—	—	\$7.84 ⁺	4	\$6.49 ⁺	5
Pacific halibut: Vessel	—	—	—	—	\$6.13 ⁺	8	\$5.82 ⁺	8
Shellfish: All	\$2.56 ⁺	4	\$3.21 ⁺	4	—	—	—	—
Shellfish: Non-vessel	—	—	—	—	\$2.87 ⁺	6	\$1.85 ⁺	4
Shellfish: Vessel	—	—	—	—	—	—	***	***
Squid: All	\$0.76 ⁺	6	\$0.59 ⁺	9	—	—	—	—
Squid: Non-vessel	—	—	—	—	\$1.43 ⁺	4	\$0.83 ⁺	3
Squid: Vessel	—	—	—	—	\$0.20 ⁺	4	\$0.18 ⁺	3
Sturgeon: Non-vessel	—	—	—	—	\$4.29 ⁺	4	\$3.70 ⁺	5
Sturgeon: Vessel	—	—	—	—	\$2.52 ⁺	4	\$2.43 ⁺	4

2.8 Revenue Per Pound from Fish Products Produced

2.8.1 Mean production revenue per pound by product type

The mean revenue per pound of fish output by species e and product type o is

$$\frac{\sum_{n=1}^N \frac{R_{n,e,o}}{WT_{n,e,o}^{fishoutputs}}}{N} \quad \forall e, o$$

where R is the revenue of fish outputs, $WT^{fishoutputs}$ is the weight of fish outputs, and N is the total number of processors with non-zero, non-NA responses. The mean revenue per pound of fish by species and source of fish is calculated for each survey year.

Table 2.101: Mean revenue per pound: whiting, dover sole, thornyheads, sablefish.

Species: Product	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Dover sole: Fresh	\$2.38 ⁺	12	\$2.45 ⁺	12	\$3.29 ⁺	11	\$3.33 ⁺	12
Dover sole: Frozen	\$2.98 ⁺	10	\$3.61 ⁺	11	\$2.58 ⁺	10	\$2.59 ⁺	10
Dover sole: Other	***	***	***	***	—	—	***	***
Dover sole: Unprocessed	\$1.62 ⁺	5	\$0.81 ⁺	7	\$1.05 ⁺	8	\$0.50 ⁺	8
Pacific whiting: Fillet	\$1.18 ⁺	3	\$0.98 ⁺	4	\$0.70 ⁺	3	\$1.10 ⁺	3
Pacific whiting: Frozen	***	***	\$0.26 ⁺	4	\$0.31 ⁺	6	\$0.35 ⁺	6
Pacific whiting: Headed-and-gutted	\$0.61 ⁺	9	\$0.58 ⁺	9	\$0.62 ⁺	8	\$0.75 ⁺	7
Pacific whiting: Other	\$0.21 ⁺	3	***	***	\$0.43 ⁺	5	\$0.38 ⁺	4
Pacific whiting: Surimi	***	***	***	***	***	***	***	***
Pacific whiting: Unprocessed	***	***	\$0.10 ⁺	4	***	***	***	***
Sablefish: Fresh	\$4.83 ⁺	11	\$5.30 ⁺	14	\$5.10 ⁺	12	\$6.34 ⁺	13
Sablefish: Frozen	\$4.88 ⁺	11	\$5.05 ⁺	13	\$6.80 ⁺	12	\$4.99 ⁺	13
Sablefish: Other	***	***	***	***	—	—	\$4.11 ⁺	4
Sablefish: Unprocessed	\$2.83 ⁺	3	\$2.86 ⁺	4	\$3.80 ⁺	9	\$3.06 ⁺	9
Thornyheads: Fresh	\$1.45 ⁺	5	\$1.09 ⁺	7	\$1.94 ⁺	3	\$1.46 ⁺	3
Thornyheads: Frozen	\$4.52 ⁺	7	\$2.25 ⁺	7	\$2.94 ⁺	8	\$3.26 ⁺	9
Thornyheads: Other	—	—	***	***	***	***	***	***
Thornyheads: Unprocessed	\$1.57 ⁺	3	\$1.01 ⁺	4	\$1.05 ⁺	9	\$1.74 ⁺	9

Table 2.102: Mean revenue per pound: other groundfish.

Species: Product	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Arrowtooth flounder: Fresh	—	—	—	—	\$0.91 [‡]	8	\$1.04 [‡]	9
Arrowtooth flounder: Frozen	—	—	—	—	\$0.89 [‡]	7	\$1.16 [‡]	9
Arrowtooth flounder: Other	—	—	—	—	—	—	***	***
Arrowtooth flounder: Unprocessed	—	—	—	—	***	***	\$0.51 [‡]	5
Lingcod: Fresh	\$3.42 [‡]	13	\$2.75 [‡]	13	\$3.97 [‡]	8	\$4.86 [‡]	10
Lingcod: Frozen	\$7.31 [‡]	5	\$2.37 [‡]	5	\$4.84 [‡]	6	\$2.86 [‡]	6
Lingcod: Other	***	***	***	***	\$3.02 [‡]	3	\$2.00 [‡]	3
Lingcod: Unprocessed	\$10.47 [‡]	6	\$2.23 [‡]	6	\$2.58 [‡]	10	\$1.74 [‡]	11
Rockfish: Fresh	\$2.65 [‡]	16	\$2.29 [‡]	16	\$2.81 [‡]	12	\$3.38 [‡]	11
Rockfish: Frozen	\$2.53 [‡]	8	\$2.34 [‡]	8	\$2.80 [‡]	8	\$2.30 [‡]	10
Rockfish: Other	***	***	—	—	\$2.11 [‡]	3	***	***
Rockfish: Unprocessed	\$1.14 [‡]	7	\$1.12 [‡]	7	\$1.39 [‡]	14	\$1.17 [‡]	14
Sanddab: Fresh	—	—	—	—	\$3.26 [‡]	5	\$4.39 [‡]	6
Sanddab: Frozen	—	—	—	—	\$4.82 [‡]	7	\$4.47 [‡]	7
Sanddab: Other	—	—	—	—	***	***	***	***
Sanddab: Unprocessed	—	—	—	—	\$1.08 [‡]	5	\$1.31 [‡]	9
Sharks, skates and rays: Fresh	\$1.95 [‡]	8	\$1.48 [‡]	10	\$2.57 [‡]	6	\$1.29 [‡]	5
Sharks, skates and rays: Frozen	\$1.51 [‡]	8	\$1.76 [‡]	6	\$2.34 [‡]	8	\$1.99 [‡]	9
Sharks, skates and rays: Other	***	***	—	—	***	***	—	—
Sharks, skates and rays: Unprocessed	***	***	\$1.82 [‡]	4	\$0.77 [‡]	8	\$0.77 [‡]	9

Table 2.103: Mean revenue per pound: other groundfish (cont.).

Species: Product	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
English sole: Fresh	\$2.63 [*]	11	\$2.72 [*]	11	\$3.20 [*]	9	\$3.54 [*]	9
English sole: Frozen	\$1.73 [*]	6	\$1.69 [*]	4	\$2.65 [*]	5	\$2.27 [‡]	8
English sole: Unprocessed	\$0.73 [*]	3	\$0.66 [*]	5	\$1.33 [‡]	6	\$0.75 [‡]	8
Petrale sole: Fresh	\$4.29 [*]	11	\$4.70 [‡]	14	\$5.91 [*]	11	\$6.35 [*]	10
Petrale sole: Frozen	\$2.67 [*]	7	\$3.02 [*]	8	\$3.96 [‡]	6	\$4.08 [‡]	7
Petrale sole: Other	—	—	—	—	***	***	—	—
Petrale sole: Unprocessed	\$1.83 [*]	7	\$2.40 [*]	6	\$2.91 [‡]	11	\$2.34 [*]	13
Rex sole: Fresh	\$1.78 [*]	11	\$2.31 [‡]	9	\$2.74 [‡]	9	\$2.29 [*]	8
Rex sole: Frozen	\$1.54 [*]	7	\$1.39 [*]	6	\$1.63 [*]	7	\$2.47 [‡]	8
Rex sole: Other	—	—	***	***	—	—	***	***
Rex sole: Unprocessed	\$0.86 [*]	6	\$0.74 [*]	6	\$0.70 [*]	8	\$0.77 [‡]	6

Table 2.104: Mean revenue per pound: non-groundfish.

Species: Product	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Coastal pelagics: Fresh	***	***	***	***	***	***	\$0.36 ⁺	3
Coastal pelagics: Frozen	\$1.15 ⁺	7	\$0.98 ⁺	7	\$0.99 ⁺	10	\$0.39 ⁺	10
Coastal pelagics: Other	\$0.23 ⁺	3	\$0.23 ⁺	3	***	***	—	—
Coastal pelagics: Unprocessed	***	***	***	***	\$2.19 ⁺	3	***	***
Crab: Canned	***	***	***	***	***	***	***	***
Crab: Fresh	\$7.41 ⁺	13	\$3.35 ⁺	16	\$5.53 ⁺	15	\$5.43 ⁺	15
Crab: Frozen	\$5.48 ⁺	13	\$4.48 ⁺	15	\$6.23 ⁺	16	\$7.67 ⁺	16
Crab: Other	\$7.86 ⁺	3	***	***	***	***	\$12.87 ⁺	3
Crab: Unprocessed	\$4.15 ⁺	5	\$3.00 ⁺	4	\$4.71 ⁺	8	\$3.46 ⁺	11
Salmon: Canned	***	***	***	***	***	***	***	***
Salmon: Fresh	\$4.92 ⁺	7	\$5.29 ⁺	11	\$6.59 ⁺	13	\$5.77 ⁺	10
Salmon: Frozen	\$3.48 ⁺	6	\$3.72 ⁺	9	\$3.79 ⁺	12	\$4.70 ⁺	11
Salmon: Other	***	***	***	***	—	—	—	—
Salmon: Smoked	***	***	***	***	***	***	***	***
Salmon: Unprocessed	\$4.26 ⁺	3	\$4.89 ⁺	5	\$5.07 ⁺	10	\$6.33 ⁺	11
Shrimp: Canned	—	—	—	—	***	***	***	***
Shrimp: Fresh	\$3.07 ⁺	7	\$3.24 ⁺	7	\$3.09 ⁺	6	\$3.08 ⁺	5
Shrimp: Frozen	\$3.92 ⁺	7	\$3.49 ⁺	9	\$4.00 ⁺	10	\$3.89 ⁺	12
Shrimp: Other	—	—	***	***	—	—	—	—
Shrimp: Unprocessed	***	***	***	***	\$6.38 ⁺	4	\$5.87 ⁺	3
Tuna: Canned	***	***	***	***	***	***	***	***
Tuna: Fresh	\$2.99 ⁺	5	\$3.47 ⁺	8	\$6.07 ⁺	4	\$3.85 ⁺	6
Tuna: Frozen	\$1.86 ⁺	9	\$1.98 ⁺	12	\$2.65 ⁺	13	\$2.67 ⁺	12
Tuna: Other	***	***	***	***	—	—	***	***
Tuna: Unprocessed	***	***	\$2.50 ⁺	4	\$2.87 ⁺	11	\$2.35 ⁺	8

Table 2.105: Mean revenue per pound: non-groundfish (cont.).

Species: Product	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
California halibut: Fresh	\$8.25 [‡]	3	\$8.32 [‡]	6	\$9.24 [‡]	5	\$10.98 [‡]	3
California halibut: Frozen	***	***	***	***	***	***	***	***
California halibut: Other	—	—	***	***	—	—	—	—
California halibut: Unprocessed	\$5.60 [‡]	4	\$5.04 [‡]	3	\$5.60 [‡]	6	\$6.17 [‡]	6
Other species: Other	\$1.79 [‡]	10	\$1.43 [‡]	10	\$1.19 [‡]	12	\$1.76 [‡]	11
Pacific halibut: Fresh	\$5.74 [‡]	5	\$6.60 [‡]	6	\$9.79 [‡]	8	\$9.76 [‡]	4
Pacific halibut: Frozen	\$5.94 [‡]	4	\$8.49 [‡]	4	\$11.26 [‡]	4	\$9.51 [‡]	5
Pacific halibut: Other	***	***	***	***	***	***	—	—
Pacific halibut: Unprocessed	***	***	***	***	\$8.14 [‡]	4	\$6.45 [‡]	6
Shellfish: Fresh	***	***	***	***	\$9.19 [‡]	3	***	***
Shellfish: Frozen	\$7.03 [‡]	3	\$4.84 [‡]	3	***	***	***	***
Shellfish: Unprocessed	\$3.40 [‡]	3	\$3.52 [‡]	3	\$3.18 [‡]	5	\$2.62 [‡]	4
Squid: Fresh	***	***	***	***	***	***	—	—
Squid: Frozen	***	***	\$1.17 [‡]	6	\$1.36 [‡]	6	\$0.88 [‡]	4
Squid: Other	—	—	***	***	—	—	—	—
Squid: Unprocessed	***	***	—	—	***	***	***	***
Sturgeon: Fresh	\$4.53 [‡]	4	\$4.82 [‡]	4	\$6.78 [‡]	5	\$7.40 [‡]	5
Sturgeon: Frozen	***	***	\$4.14 [‡]	3	***	***	\$18.41 [‡]	3
Sturgeon: Other	***	***	—	—	—	—	—	—
Sturgeon: Unprocessed	—	—	—	—	\$6.22 [‡]	3	\$8.48 [‡]	3

2.9 Markup

The average markup by species e is

$$\frac{\sum_{n=1}^N \frac{\sum_{o=1}^O R_{e,o}}{S}}{N} \quad \forall e$$

where R is the revenue of fish outputs, C is the cost of fish inputs, N is the total number of processors with non-zero, non-NA responses, O is the number of product types, and S is number of sources. The average markup by species or species group is calculated for each survey year. The costs of fish include fish received from all sources. The fish purchases can include pre-processed product types. The production value includes production of unprocessed and processed products.

2.9.1 Average markup

Table 2.106: Average markup. (N = number of EDC Processors with non-zero, non-NA responses).

Species	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Arrowtooth flounder	—	—	—	—	2.47 [‡]	11	2.52 [‡]	13
California halibut	1.17 [•]	5	3.47 [‡]	7	1.18 [•]	8	1.32 [•]	8
Coastal pelagics	2.89 [‡]	9	2.41 [•]	8	3.16 [‡]	13	2.54 [•]	11
Crab	3.24 [‡]	15	1.46 [•]	18	1.41 [•]	19	1.34 [•]	22
Dover sole	1.82 [•]	13	1.90 [•]	14	1.62 [•]	14	1.77 [•]	15
Echinoderms	***	***	***	***	***	***	***	***
English sole	2.38 [‡]	11	2.07 [‡]	13	1.91 [•]	12	2.01 [•]	14
Lingcod	1.78 [‡]	15	2.16 [‡]	16	1.76 [•]	17	1.60 [•]	19
Pacific halibut	1.25 [•]	6	1.08 [•]	8	1.05 [•]	10	1.05 [•]	8
Pacific herring		0		0	***	***	***	***
Pacific whiting	5.25 [‡]	12	3.43 [•]	13	2.74 [•]	10	2.33 [•]	10
Petrale sole	2.21 [•]	11	1.65 [•]	15	1.46 [•]	14	1.43 [•]	16
Rex sole	2.15 [•]	12	2.12 [•]	12	2.22 [•]	11	1.72 [•]	14
Rockfish	1.81 [‡]	18	1.46 [•]	19	1.65 [•]	22	1.34 [•]	20
Sablefish	1.29 [•]	16	1.49 [•]	18	1.33 [•]	20	1.28 [•]	21
Salmon	1.81 [•]	8	1.33 [•]	12	1.28 [•]	18	1.28 [•]	18
Sanddab	—	—	—	—	2.13 [•]	10	3.05 [‡]	12
Sharks, skates and rays	3.34 [‡]	12	2.59 [‡]	13	2.43 [‡]	15	1.84 [‡]	16
Shellfish	1.60 [•]	4	1.62 [•]	4	1.40 [•]	6	1.65 [•]	5
Shrimp	2.25 [‡]	9	1.57 [•]	11	2.10 [•]	11	1.78 [•]	14
Squid	1.75 [‡]	5	2.45 [‡]	8	***	***	1.33 [•]	4
Sturgeon	—	—	—	—	1.24 [•]	6	1.32 [•]	6
Thornyheads	1.72 [•]	13	1.76 [•]	14	2.10 [•]	16	2.08 [•]	16
Tuna	1.81 [‡]	10	1.26 [‡]	14	1.27 [•]	18	1.23 [•]	18
Other species	7.36 [‡]	10	5.46 [‡]	10	2.33 [‡]	12	1.93 [‡]	11

3 EDC Non-Processors

This section of the report summarizes information on first receivers that report no processing activity. These companies have first receiver site licenses but do not process any fish. For the purposes of this report, such first receivers are called "EDC Non-Processors." In 2009 and 2010, only entities that processed groundfish were required to fill out the entire form. In 2011 onward, all entities with a first receiver site license were required to submit the entire form. Thus, this section will only report summary statistics for 2011 onward.

3.1 Facility Value

3.1.1 Appraisal value of facility

Table 3.1: Value from last appraisal of facility (N = number of EDC Non-Processors with non-zero, non-NA responses).

	2011		2012	
	Mean	N	Mean	N
Market value of facility from last appraisal	\$267,000:	3	\$267,000:	3
Replacement value of facility from last appraisal	***	***	***	***

3.2 Employment

This section describes the employment information for EDC Non-Processors. Refer to Section 2.2 for more details on employment information collected on the EDC form.

3.2.1 Production workers

Table 3.2: Weekly employment: Number of production workers. Number of production workers for the week that includes the 12th of the month (N = number of EDC Non-Processors with non-zero, non-NA responses).

Month	2011		2012	
	Mean	N	Mean	N
January	15 ⁺	4	14 ⁺	3
February	15 ⁺	4	11 ⁺	3
March	16 ⁺	4	10 ⁺	3
April	15 ⁺	5	14 ⁺	3
May	15 ⁺	5	21 ⁺	3
June	15 ⁺	5	16 ⁺	3
July	20 ⁺	5	20 ⁺	3
August	18 ⁺	5	24 ⁺	3
September	23 ⁺	5	23 ⁺	3
October	16 ⁺	5	26 ⁺	3
November	18 ⁺	5	23 ⁺	3
December	16 ⁺	5	14 ⁺	3

Table 3.3: Weekly employment: Production worker hours. Hours worked by production workers for the week that includes the 12th of the month (N = number of EDC Non-Processors with non-zero, non-NA responses).

Month	2011		2012	
	Mean	N	Mean	N
January	510.1 [‡]	4	322.2 [‡]	3
February	510.8 [‡]	4	248.1 [‡]	3
March	509.6 [‡]	4	214.4 [‡]	3
April	463.1 [‡]	5	275.1 [‡]	3
May	621.5 [‡]	5	408.2 [‡]	3
June	711.4 [‡]	5	378.3 [‡]	3
July	705.3 [‡]	5	489.9 [‡]	3
August	683.3 [‡]	5	672.8 [‡]	3
September	819.2 [‡]	5	598.6 [‡]	3
October	601.3 [‡]	5	778.2 [‡]	3
November	758.6 [‡]	5	536.9 [‡]	3
December	600.4 [‡]	5	234.4 [‡]	3

3.2.2 Non-production employees

Table 3.4: Weekly employment: Non-production employees. Number of non-production employees and hours worked for the week that includes March 12 (N = number of EDC Non-Processors with non-zero, non-NA responses).

	2011		2012	
	Mean	N	Mean	N
Hours Worked	92.1 [‡]	7	64.7 [‡]	5
Number of employees	3.4 [‡]	7	2.2 [*]	5

3.2.3 Compensation

Hourly compensation for each EDC Non-Processor is calculated by dividing annual labor expenses (Section 2.3.2) by an estimate of total annual hours worked. The EDC form requests information on number of employees and total hours worked for the week including the 12th day of the month for production workers and for the week including the 12th day in March for non-production employees. Estimates of total annual hours worked for each company are found by assuming that employment information for the week of the 12th is representative of the entire month and by weighting each month equally using the following formula:

$$\sum_{m=1}^{12} \left(\frac{\text{Hours}}{\text{week}} \right)_m * \frac{52}{12}$$

Table 3.5: Hourly compensation. Average hourly compensation. (N = number of EDC Non-Processors with non-zero, non-NA responses).

	2011		2012	
	Mean	N	Mean	N
Production workers	\$11.95 [†]	4	\$10.68 [†]	3
Non-production employees	\$8.68 [†]	5	\$14.09 [†]	4

Compensation per position for each EDC Non-Processor is calculated by dividing annual labor expenses (Section 2.3.2) by the average numbers of workers across months in year. This assumes that the average number of workers is representative of the total number of positions that year. For non-production workers, it is assumed that number of workers in the week containing March 12th is representative of the number of non-production employee positions in all weeks during the year.

Table 3.6: Compensation per position. Average compensation per position. (N = number of EDC Non-Processors with non-zero, non-NA responses).

	2011		2012	
	Mean	N	Mean	N
Production workers	\$17,400 [†]	4	\$14,462 [†]	3
Non-production employees	\$13,046 [†]	5	\$18,179 [†]	4

3.3 Costs

This section of the report describes the cost data that are collected on the EDC first receiver and shorebased processor form for companies that report no processing activities. There were not enough responses to summarize fixed costs by various categories and maintain data confidentiality. Thus, fixed costs are only reported at an aggregated level. This information is contained in Table 3.23. Refer to Section 2.3 for more information on what comprises fixed costs and variable costs.

There are a variety of costs that are associated with running a first receiver or shorebased processing facility that are not requested on the EDC form. This is because it is difficult to determine the share of the costs associated with the facility. These expenses include trucks, and professional fees. In general, the EDC forms attempt to collect costs that are directly related to facility maintenance and processing operations, and not costs that are related to activities or equipment beyond the facility (one exception is off-site product freezing and storage). For these reasons, the EDC aggregated measures of costs (variable costs, fixed costs and total costs) underestimate the true costs of operating a business.

3.3.1 Variable Costs

Labor expenses

Table 3.7: Employment expenses. Total annual labor expenses for all employees (includes wages, bonuses, benefits, payroll taxes, and unemployment insurance). (N = number of EDC Non-Processors with non-zero, non-NA responses).

Expense	2011		2012	
	Mean	N	Mean	N
Production workers	\$280,497 [†]	5	\$216,574 [†]	3
Non-production employees	\$36,396 [‡]	5	\$44,736 [‡]	4

Quota costs

Not enough Non-Processors reported quota costs to be able to display this information.

Other expenses

Utility expenses include electricity, natural gas, propane gas, water, and sewer, waste and byproduct disposal expenses.

Table 3.8: Other expenses (N = number of EDC Non-Processors with non-zero, non-NA responses).

Expense	2011		2012	
	Mean	N	Mean	N
Cleaning and custodial supplies	\$3,252:	4	\$1,502:	5
Freight costs for supplies		0	***	***
Insurance (property, product, and personal liability)	\$4,139:	5	\$16,492:	4
Licensing fees	\$1,268:	8	\$951:	7
Non-fish ingredients (additives)	***	***		0
Offloading	\$12,483:	4	***	***
Packing materials	\$51,634:	5	\$27,851:	5
Production supplies	\$1,833:	3	\$1,127:	3
Shoreside monitoring	\$484:	6	\$1,572:	5
Taxes (property and excise)	\$3,444:	5	\$10,696:	4
Utilities	\$12,806:	15	\$14,088:	13

3.3.2 Fish purchases

The following tables describe fish purchases by EDC Non-Processors. There were not enough responses to summarize fish purchases for each species requested on the EDC form. Thus, fish purchase information for these companies is aggregated to the following five species groups: **groundfish, sablefish, rockfish, crab, and other species.**

Respondents are asked to provide the weight and cost of fish received during the survey year. This includes: 1) the weight of fish paid for; 2) the weight of those not paid for due to size or quality reasons; and 3) the weight of fish not paid for due to intra-company transfers.

The cost of fish from vessel or non-vessel sources includes the value of any taxes paid on behalf of delivering vessels. Purchase weight and cost information is requested by categories for different species types and sources. For catch share species, the fish source categories are: 1) Limited Entry (LE) Trawl; 2) LE Fixed Gear; 3) Other vessels; and 4) Non-vessel sources. For non-catch share species, the fish source categories are: 1) Vessel sources; and 2) Non-vessel sources. LE Trawl represents fish acquired directly from a vessel registered to a LE permit with a trawl endorsement and caught with either trawl or fixed gear. LE Fixed Gear represents fish acquired directly from a vessel with a fixed gear endorsement. This does not include fish caught with a fixed gear on a LE permit with a trawl endorsement, i.e., the gear switching provision of the catch share program, which are included under LE trawl. Other vessels are those without either a LE Trawl or LE Fixed Gear endorsement. Non-vessel sources include fish acquired from other entities, including other first receivers, processors, wholesale dealers, brokers, aquaculture producers, and transfers from outside the facility.

Fish that are not paid for are excluded from the tables in this section. This includes fish recorded as having zero value due to size or quality reasons, as well as fish that are received for custom processing. The tables do include post season adjustments and fish purchased that are then custom processed by another processor outside the facility. As stated in the introduction to this report, respondents fill out the EDC form according to their fiscal year, so pounds listed for each species may not have been purchased during the calendar year indicated by the column header, and therefore these values may not align directly to state-fish ticket data.

3.3.3 Total cost and weight of fish purchases by source and species group

Table 3.9: Groundfish (excluding rockfish and sablefish): Total purchase weight and cost by source and species group (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2011			2012		
	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	***	16,694	***	***	***	***
LE Trawl	103,402	151,535	3	369,041	181,452	3
Non-vessel	***	***	***	0	0	0
Other Vessel	***	***	***	0	0	0

Table 3.10: Rockfish: Total purchase weight and cost by source and species group (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2011			2012		
	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	***	***	***	***	***	***
LE Trawl	102,162	59,490	3	108,716	56,726	3
Non-vessel	***	***	***	0	0	0
Other Vessel	***	***	***	0	0	0

Table 3.11: Sablefish: Total purchase weight and cost by source and species group (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2011			2012		
	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	556,826	***	3	***	***	***
LE Trawl	***	***	***	13,561	10,967	3
Non-vessel	0	0	0	0	0	0
Other Vessel	0	0	0	0	0	0

Table 3.12: Crab: Total purchase weight and cost by source and species group (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2011			2012		
	Weight	Cost	N	Weight	Cost	N
Non-vessel	0	0	0	0	0	0
Vessel	200,162	558,369	4	***	***	***

Table 3.13: Other: Total purchase weight and cost by source and species group (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2011			2012		
	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	0	0	0	0	0	0
LE Trawl	0	0	0	0	0	0
Non-vessel	***	***	***	***	***	***
Vessel	***	1,787,342	***	***	***	***
Other Vessel	0	0	0	0	0	0

3.3.4 Mean cost and weight of fish purchases by source and species group

Table 3.14: Groundfish (excluding rockfish and sablefish): Average purchase weight and cost by source and species group (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2011			2012		
	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	***	5,565:	***	***	***	***
LE Trawl	34,467:	50,512:	3	123,014:	60,484:	3
Non-vessel	***	***	***			0
Other Vessel	***	***	***			0

Table 3.15: Rockfish: Average purchase weight and cost by source and species group (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2011			2012		
	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	***	***	***	***	***	***
LE Trawl	34,054:	19,830:	3	36,239:	14,181:	3
Non-vessel	***	***	***			0
Other Vessel	***	***	***			0

Table 3.16: Sablefish: Average purchase weight and cost by source and species group (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2011			2012		
	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear	185,609:	***	3	***	***	***
LE Trawl	***	***	***	4,520	3,656:	3
Non-vessel			0			0
Other Vessel			0			0

Table 3.17: Crab: Average purchase weight and cost by source and species group (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2011			2012		
	Weight	Cost	N	Weight	Cost	N
Non-vessel			0			0
Vessel	50,041:	139,592:	4	***	***	***

Table 3.18: Other: Average purchase weight and cost by source and species group (N = number of EDC Non-Processors with non-zero, non-NA responses).

Source	2011			2012		
	Weight	Cost	N	Weight	Cost	N
LE Fixed Gear			0			0
LE Trawl			0			0
Non-vessel	***	***	***	***	***	***
Vessel	***	446,835 :	***	***	***	***
Other Vessel			0			0

3.4 Depreciation

Depreciation in the following table includes depreciation for all capital investments on buildings, and new and used machinery and equipment during the EDC data collection year for EDC Non-Processors.

Table 3.19: Depreciation (N = number of EDC Non-Processors with non-zero, non-NA responses).

	2011		2012	
	Mean	N	Mean	N
Depreciation	\$69,747 [†]	5	\$63,866 [†]	3

3.5 Revenue

3.5.1 Revenue from offloading

There were not enough responses from EDC Non-Processors to report revenue from custom processing and from the sale or lease of quota pounds or quota shares. Thus the following table shows revenue from offloading only.

Table 3.20: Other revenue (N = number of EDC Non-Processors with non-zero, non-NA responses).

Revenue Source	2011		2012	
	Mean	N	Mean	N
Offloading	\$235,090	3	\$196,851	4

3.5.2 Production activities

The following tables show production and sales for EDC Non-Processors. As these companies do not process fish, all production activities are listed under the product category Unprocessed. Refer to Section 2.5.2 for more details about production information collected by EDC forms.

3.5.3 Total value and weight of fish production by product type and species group

Table 3.21: Total production value and weight by species group. Product type is unprocessed for all. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Product	2011			2012		
	Weight	Value	N	Weight	Value	N
Crab	191,049	569,489	3	***	***	***
Groundfish (excluding rockfish and sablefish)	175,042	296,319	6	***	***	***
Rockfish	139,180	233,690	6	***	***	***
Sablefish	620,953	2,251,078	6	***	***	***
Other	1,498,127	3,929,715	4	***	***	***

3.5.4 Average value and weight of fish production by product type and species

Table 3.22: Mean production value and weight by species group. Product type is unprocessed for all. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Product	2011			2012		
	Weight	Value	N	Weight	Value	N
Crab	63,683:	189,830:	3	***	***	***
Groundfish (excluding rockfish and sablefish)	29,174:	49,386:	6	***	***	***
Rockfish	23,197:	38,948:	6	***	***	***
Sablefish	103,492:	375,180:	6	***	***	***
Other	374,532:	982,429:	4	***	***	***

3.6 Net Revenue and Economic Profit

Measures of net revenue earned by EDC Non-Processors are presented in this section. Refer to Section 2.6 for more details on the different measures of net revenue and several caveats concerning these measures.

3.6.1 Net revenue for all operations (IFQ and non-IFQ fish)

Average net revenue is calculated based on information from EDC Non-Processors for 2011 onward.

Revenue includes the total value of production and revenue from custom processing and offloading.

The variable and fixed costs do not include costs related to acquiring quota shares or quota pounds.

$$\text{Variable cost net revenue} = \text{Revenue} - \text{Variable costs}$$

$$\text{Total cost net revenue} = \text{Revenue} - (\text{Variable costs} + \text{Fixed costs})$$

Table 3.23: Revenue, costs, and net revenue. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Expense	2011		2012	
	Mean	N	Mean	N
Revenue	\$952,522	9	\$530,578	6
(Variable costs)	\$801,283	10	\$418,097	8
Variable cost net revenue	\$66,706	9	-\$3,893	6
(Fixed costs)	\$87,901	7	\$130,413	5
Total cost net revenue	-\$15,781	7	-\$184,139	4

3.6.2 Total cost net revenue rates

Table 3.24: Revenue, costs, and total and variable cost net revenue by pounds produced and pounds of fish purchased (N = number of EDC Non-Processors with non-zero, non-NA responses).

Expense	2011		2012	
	Mean	N	Mean	N
Revenue per production pounds	\$3.521	7	\$2.294	4
Revenue per purchase pounds	\$4.617	7	\$1.414	4
Variable cost per production pounds	\$2.510	7	\$2.206	4
Variable cost per purchase pounds	\$2.775	8	\$1.358	6
Variable cost net revenue per production pounds	\$1.011	7	\$0.088	4
Variable cost net revenue per purchase pounds	\$1.926	7	\$0.119	4
Fixed cost per production pounds	\$0.770	5	***	***
Fixed cost per purchase pounds	\$1.319	5	\$0.377	3
Total cost net revenue per production pounds	\$0.481	5	***	***
Total cost net revenue per purchase pounds	\$1.212	5	***	***

3.7 Cost Per Pound of Fish Purchases

3.7.1 Mean fish purchase cost per pound by species and source of fish

The mean cost per pound of fish inputs by species e and source of fish s is

$$\frac{\sum_{n=1}^N \frac{C_{n,e,s}}{WT_{n,e,s}^{fishinputs}}}{N} \quad \forall e, s$$

where C is the cost of fish inputs, $WT^{fishinputs}$ is the weight of fish inputs, and N is the total number of Non-Processors with non-zero, non-NA responses. The mean cost per pound of fish by species and source of fish is calculated for each survey year.

Table 3.25: Mean fish cost per pound (N = number of EDC Non-Processors with non-zero, non-NA responses).

Species: Source	2011		2012	
	Mean	N	Mean	N
Crab: Non-vessel		0		0
Crab: Vessel	4.22 ‡	4	2.82 †	3
Groundfish (excluding rockfish and sablefish): LE Fixed Gear	1.83 ‡	3	***	***
Groundfish (excluding rockfish and sablefish): LE Trawl	2.31 ‡	3	0.94 ‡	3
Groundfish (excluding rockfish and sablefish): Non-vessel	***	***		0
Groundfish (excluding rockfish and sablefish): Other Vessel	***	***		0
Other: LE Fixed Gear		0		0
Other: LE Trawl		0		0
Other: Non-vessel	***	***	0.56 †	3
Other: Other Vessel		0		0
Other: Vessel	2.45 ‡	4	***	***
Rockfish: LE Fixed Gear	***	***	***	***
Rockfish: LE Trawl	0.75 †	3	0.85 ‡	3
Rockfish: Non-vessel	***	***		0
Rockfish: Other Vessel	***	***		0
Sablefish: LE Fixed Gear	2.36 †	3	***	***
Sablefish: LE Trawl	1.23 ‡	3	1.05 ‡	3
Sablefish: Non-vessel		0		0
Sablefish: Other Vessel		0		0

3.8 Revenue Per Pound from Fish Products Produced

3.8.1 Mean production revenue per pound by product type

The mean revenue per pound of fish output by species e and product type o is

$$\frac{\sum_{n=1}^N \frac{R_{n,e,o}}{WT_{n,e,o}^{fishoutputs}}}{N} \quad \forall e, o$$

where R is the revenue of fish outputs, $WT^{fishoutputs}$ is the weight of fish outputs, and N is the total number of Non-Processors with non-zero, non-NA responses. The mean revenue per pound of fish by species and source of fish is calculated for each survey year.

Table 3.26: Mean fish revenue per pound (N = number of EDC Non-Processors with non-zero, non-NA responses).

Species: Product	2011		2012	
	Mean	N	Mean	N
Crab: Unprocessed	5.40 [‡]	3	***	***
Groundfish (excluding rockfish and sablefish): Unprocessed	2.94 [‡]	6	***	***
Rockfish: Unprocessed	2.05 [‡]	6	2.78 [‡]	3
Sablefish: Unprocessed	6.44 [‡]	6	3.43 [‡]	3
Other: Unprocessed	4.87 [‡]	4	1.80 [‡]	3

3.9 Markup

The average markup by species e is

$$\frac{\sum_{n=1}^N \frac{\sum_{o=1}^O R_{e,o}}{S}}{\sum_{s=1}^S C_{e,s}} \quad \forall e$$

where R is the revenue of fish outputs, C is the cost of fish inputs, N is the total number of Non-Processors with non-zero, non-NA responses, O is the number of product types, and S is number of sources. The average markup by species or species group is calculated for each survey year.

3.9.1 Average markup

Table 3.27: Average markup. (N = number of EDC Non-Processors with non-zero, non-NA responses).

Species Group	2011		2012	
	Mean	N	Mean	N
Crab	1.10 [*]	3	***	***
Groundfish (excluding rockfish and sablefish)	1.44 [*]	6	***	***
Rockfish	1.53 [*]	5	1.77 [*]	3
Sablefish	3.17 [‡]	6	1.39 [*]	3
Other	1.28 [*]	3	1.27 [*]	3

Appendix A Cost Disaggregation

In order to conduct economic analyses of specific fisheries it is important to have costs broken out by fishery. However, processors participating in multiple fisheries incur costs that are aggregated across fisheries. These are called joint costs in the economics and accounting literature. They may include fixed costs (e.g., new processing equipment), or variable costs (e.g., ice). The former are joined by the nature of the costs, while the latter are joined due to observational limitations. It is difficult to assign fixed costs to a particular fishery because the level of the cost does not vary with processor participation (at least over the short run).

Some variable costs can be tracked by fishery, but would be costly to do so. For example, although a processor could theoretically set up a system to track expenditures on production supplies by fishery, doing so is rare among the EDC Processors.

Research is currently being conducted at the Northwest Fisheries Science Center to determine the “best” method of cost allocation relative to certain criteria. For the purposes of this report, five different methods were explored: 1) cost allocation by weight of pounds purchased; 2) cost allocation by cost of pounds purchased; 3) cost allocation by weight of pounds produced; 4) cost allocation by value of pounds processed; and 5) cost allocation by valued added (values of fish sales less the cost of purchasing that fish). The fisheries considered in this analysis are the broad categories of 1) Shoreside Pacific whiting; 2) Non-whiting groundfish; and 3) Other.

To understand the potential implications of the assumptions associated with the five methods of cost disaggregation, the output of the different methods were examined by looking at the effect on average variable cost net revenue (VCNR) and total cost net revenue (TCNR).

Cost disaggregation was only performed using data from EDC Processors; data from EDC Non-Processors is excluded from this analysis.

Table A.1: Sensitivity analysis. Shoreside Pacific Whiting fishery average variable cost net revenue (VCNR) and total cost net revenue (TCNR) by cost disaggregation method (N = number of EDC Processors with non-zero, non-NA responses).

Method	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Purchase Weight: VCNR	\$987,043	12	\$220,049	13	\$638,806	10	\$588,037	10
Purchase Cost: VCNR	\$2,002,777	12	\$1,255,968	13	\$2,724,258	10	\$1,955,628	10
Production Weight: VCNR	\$1,159,427	12	\$679,903	13	\$1,016,445	10	\$758,227	10
Production Value: VCNR	\$1,688,769	12	\$1,001,181	13	\$2,293,774	10	\$1,691,862	10
Value Added: VCNR	\$1,311,066	12	\$635,882	13	\$1,700,846	10	\$1,351,228	9
Purchase Weight: TCNR	-\$687,224	12	-\$1,221,490	13	-\$392,276	10	\$76,670	10
Purchase Cost: TCNR	\$457,023	12	\$543,201	13	\$2,038,965	10	\$1,676,058	10
Production Weight: TCNR	-\$401,075	12	-\$483,919	13	\$69,529	10	\$289,706	10
Production Value: TCNR	-\$65,695	12	-\$98,902	13	\$1,524,661	10	\$1,363,892	10
Value Added: TCNR	-\$571,405	12	-\$797,261	13	\$811,840	10	\$890,290	9

Table A.2: Sensitivity analysis. Non-whiting groundfish fishery average variable cost net revenue (VCNR) and total cost net revenue (TCNR) by cost disaggregation method (N = number of EDC Processors with non-zero, non-NA responses).

Method	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Purchase Weight: VCNR	\$234,139	18	\$672,226	20	\$501,936	22	\$464,458	22
Purchase Cost: VCNR	-\$77,962	18	\$609,413	20	\$376,895	22	\$446,283	22
Production Weight: VCNR	\$480,986	18	\$764,184	20	\$590,689	22	\$562,161	22
Production Value: VCNR	\$209,616	18	\$535,166	20	\$431,484	22	\$449,740	22
Value Added: VCNR	\$488,076	17	\$406,909	19	\$503,728	20	\$439,363	21
Purchase Weight: TCNR	\$58,882	18	\$534,078	20	\$407,513	22	\$342,739	22
Purchase Cost: TCNR	-\$300,402	18	\$401,195	20	\$258,678	22	\$312,292	22
Production Weight: TCNR	\$350,354	18	\$626,543	20	\$504,147	22	\$446,312	22
Production Value: TCNR	\$57,649	18	\$342,811	20	\$324,968	22	\$323,879	22
Value Added: TCNR	\$376,587	17	\$210,746	19	\$392,642	20	\$310,906	21

Table A.3: Sensitivity analysis. Other fishery average variable cost net revenue (VCNR) and total cost net revenue (TCNR) by cost disaggregation method (N = number of EDC Processors with non-zero, non-NA responses).

Method	2009		2010		2011		2012	
	Mean	N	Mean	N	Mean	N	Mean	N
Purchase Weight: VCNR	\$2,057,722	19	\$1,004,397	21	\$2,195,085	24	\$2,295,360	25
Purchase Cost: VCNR	\$1,711,881	19	\$422,936	21	\$1,440,766	24	\$1,764,318	25
Production Weight: VCNR	\$1,714,992	19	\$632,147	21	\$1,956,378	24	\$2,141,305	25
Production Value: VCNR	\$1,637,760	19	\$651,373	21	\$1,570,096	24	\$1,866,782	25
Value Added: VCNR	\$1,638,193	19	\$1,019,037	21	\$1,870,834	23	\$2,091,550	25
Purchase Weight: TCNR	\$1,435,706	19	\$261,546	21	\$1,746,663	24	\$1,861,606	25
Purchase Cost: TCNR	\$1,053,398	19	-\$704,327	21	\$870,077	24	\$1,248,644	25
Production Weight: TCNR	\$978,848	19	-\$283,109	21	\$1,465,663	24	\$1,685,247	25
Production Value: TCNR	\$1,044,330	19	-\$251,231	21	\$1,023,605	24	\$1,363,314	25
Value Added: TCNR	\$1,081,394	19	\$316,898	21	\$1,347,423	23	\$1,619,977	25

Appendix B IO-PAC Model Tables

This appendix reports the EDC data for first receivers and shorebased processors that are used in the IO-PAC model¹. All EDC respondents (Processors and Non-Processors) are included in the following tables. The average markup (Table B.3) for the IO-PAC model was calculated by dividing the total value of production (Table B.1) by the total cost of all fish put into production (Table B.2). The costs of fish include fish received from trawl vessel, fixed gear vessels, other vessel, and non-vessel sources. The fish purchased can include pre-processed product types. The production value includes production of unprocessed and processed products.

B.1 Total production revenue by IO-PAC species

Table B.1: Total value fish production by IO-PAC species.

Species	2009 N=23	2010 N=25	2011 N=33	2012 N=33
	\$	\$	\$	\$
CPS	13,396,491	12,545,432	13,680,660	46,529,967
Crab	77,290,802	106,290,143	105,680,501	123,361,236
Dover and thornyhead	22,181,823	21,461,591	18,414,955	21,639,560
Halibut	4,320,134	3,306,679	4,172,459	4,882,895
HMS	22,224,997	23,268,080	29,383,902	29,741,242
Sablefish	33,844,434	39,059,711	39,619,038	32,020,691
Salmon	12,952,484	20,823,765	28,614,202	21,403,507
Shrimp	28,982,683	29,515,017	60,878,886	64,158,030
Whiting	46,650,415	33,100,501	71,134,044	55,101,571
Other groundfish	19,543,517	14,435,068	18,521,831	21,379,099

¹ Leonard, J., and P. Watson. 2011. Description of the input-output model for Pacific Coast fisheries. U.S. Dept. Commer., NOAA Tech. Memo. NMFS-NWFSC-111, 64 p.

B.2 Total fish purchase cost by IO-PAC species

Table B.2: Total cost of fish purchases by IO-PAC species.

Species	2009 N=23	2010 N=25	2011 N=33	2012 N=33
	\$	\$	\$	\$
CPS	5,773,335	5,942,997	5,583,202	19,862,760
Crab	38,959,169	72,652,739	73,211,227	85,329,849
Dover and thornyhead	11,446,179	9,926,232	8,824,865	9,697,631
Halibut	2,985,559	2,582,359	3,657,804	4,787,917
HMS	11,944,324	17,882,023	20,213,013	26,459,288
Sablefish	25,304,216	25,022,614	31,012,456	24,166,249
Salmon	6,169,633	16,260,063	20,955,055	14,665,176
Shrimp	11,968,654	16,219,329	31,428,611	32,418,598
Whiting	12,748,568	9,117,094	24,842,072	20,620,032
Other groundfish	9,778,066	9,412,786	10,758,306	13,678,269

B.3 Markup

B.4 Other IO-PAC inputs

The IO-PAC model uses inputs from the following summary tables, which show the total value and number of respondents for each category. In the tables below, the “N” in the table caption represents the total number of first receivers who reported processing in 2009 and 2010, and the total number of first receivers that reported information in 2011 (see section 1.3). The “N” listed next to the totals reported by row represents the number of non-zero, non-NA responses for that category.

Table B.3: Average industry markup by IO-PAC species.

Species	2009 N=23	2010 N=25	2011 N=33	2012 N=33
	Average	Average	Average	Average
CPS	2.32	2.11	2.45	2.34
Crab	1.98	1.46	1.44	1.45
Dover and thornyhead	1.94	2.16	2.09	2.23
Halibut	1.45	1.28	1.14	1.02
HMS	1.86	1.30	1.45	1.12
Sablefish	1.34	1.56	1.28	1.33
Salmon	2.10	1.28	1.37	1.46
Shrimp	2.42	1.82	1.94	1.98
Whiting	3.66	3.63	2.86	2.67
Other groundfish	2.00	1.53	1.72	1.56

Table B.4: Total Production Employee Hours.

	2009		2010		2011		2012	
	Total	N	Total	N	Total	N	Total	N
January	39,777.9	20	37,202.0	23	55,372.2	26	54,252.1	25
February	20,656.1	20	35,202.8	23	44,937.6	26	49,561.8	25
March	27,517.3	20	31,669.4	23	34,569.8	26	33,703.8	25
April	28,784.0	19	40,923.3	22	41,610.5	27	43,750.9	25
May	47,476.4	19	67,121.1	22	55,858.1	28	47,702.6	25
June	68,213.1	19	69,531.0	23	90,752.2	28	51,026.5	26
July	126,217.1	20	90,689.0	23	151,045.4	29	108,862.1	27
August	68,666.9	20	99,673.2	23	161,966.5	29	115,936.9	27
September	55,218.8	20	69,529.4	22	124,299.8	29	98,102.9	27
October	82,422.9	20	50,173.8	22	75,294.7	28	99,266.6	26
November	51,296.2	19	46,631.3	22	53,358.9	28	78,196.6	26
December	106,558.7	20	125,508.7	23	108,047.4	27	64,721.6	26

Table B.5: Total Number of Production Employees.

	2009		2010		2011		2012	
	Total	N	Total	N	Total	N	Total	N
January	1,495	20	1,765	23	1,895	26	1,890	25
February	1,212	20	1,471	23	1,640	26	1,950	25
March	1,233	20	1,340	23	1,183	26	1,341	25
April	1,243	19	1,411	22	1,267	27	1,435	25
May	1,462	19	1,977	22	1,358	28	1,558	25
June	2,195	19	2,138	23	2,099	28	1,913	26
July	2,730	20	2,436	23	3,153	29	2,658	27
August	2,059	20	2,750	23	3,004	29	2,794	27
September	2,011	20	2,059	22	2,732	29	2,492	27
October	1,905	20	1,840	22	1,998	28	2,417	26
November	1,552	19	1,711	22	1,582	28	2,093	26
December	2,881	20	2,560	23	2,476	27	1,733	26

Table B.6: Total Number and Hours of Non-Production Employees.

	2009		2010		2011		2012	
	Total	N	Total	N	Total	N	Total	N
Hours Worked	12,286.4	21	17,246.4	22	11,305.9	31	9,623.8	29
Number of employees	200.0	21	268.0	22	232.0	31	251.0	29

Table B.7: Total Employee Expenses.

Employment Expenses	2009		2010		2011		2012	
	Total	N	Total	N	Total	N	Total	N
Production workers	\$33,997,783	21	\$32,378,076	23	\$47,088,146	29	\$48,230,310	27
Non-production employees	\$9,018,992	20	\$10,395,436	22	\$12,190,655	29	\$13,477,516	29

Table B.8: Total Expenditures on Buildings and Equipment.

Capital Expenditures	2009		2010		2011		2012	
	Total	N	Total	N	Total	N	Total	N
Capitalized expenditures on buildings	\$6,162,592	14	\$6,661,913	13	\$3,335,907	10	\$2,534,717	16
Capitalized expenditures on new and used machinery and equipment	\$21,984,534	21	\$24,371,908	20	\$10,401,956	22	\$6,347,698	22
Expenses on processing equipment	\$490,838	15	\$558,311	17	\$629,867	21	\$754,358	16
Expenses on rental or lease of buildings, job-site trailers, and other structures	\$2,586,591	22	\$2,718,740	23	\$3,157,235	26	\$3,374,004	26
Expenses on repair and maintenance on facility buildings, machinery, and equipment	\$5,061,722	22	\$5,354,384	23	\$6,240,589	30	\$6,276,637	29

Table B.9: Total Utility Expenses.

Sum of Utilities Expenses	2009		2010		2011		2012	
	Total	N	Total	N	Total	N	Total	N
Electricity	\$3,706,575	22	\$4,010,386	23	\$4,526,426	30	\$5,075,940	28
Natural gas	\$1,137,666	12	\$1,047,859	12	\$345,217	12	\$335,271	10
Nitrogen gas	—	—	—	—	***	***	***	***
Propane gas	\$455,315	16	\$891,484	19	\$822,756	23	\$685,002	23
Water	\$1,535,981	22	\$1,987,467	23	\$2,413,399	27	\$2,648,876	27
Sewer, waste, and byproduct disposal	\$754,150	20	\$948,087	20	\$1,217,320	25	\$1,417,258	22

Table B.10: Total Other Expenses.

Sum of Other Expenses	2009		2010		2011		2012	
	Total	N	Total	N	Total	N	Total	N
Cleaning and custodial supplies	—	—	—	—	\$397,674	24	\$515,531	26
Freight costs for supplies	\$1,692,815	10	\$1,735,573	11	\$1,531,957	8	\$2,253,004	12
Insurance (property, product, and personal liability)	\$3,009,296	20	\$2,966,941	22	\$1,940,059	29	\$1,826,144	28
Licensing fees	—	—	—	—	\$296,498	30	\$341,258	31
Non-fish ingredients (additives)	\$716,795	10	\$676,366	11	\$1,486,449	13	\$2,600,295	14
Off-site product freezing and storage	\$3,203,129	17	\$3,804,195	18	\$6,068,260	17	\$8,297,012	18
Offloading	—	—	—	—	\$762,062	16	\$1,504,792	17
Packing materials	\$13,286,417	22	\$12,164,947	24	\$13,235,794	29	\$12,998,500	30
Production supplies	\$2,267,970	19	\$2,574,746	23	\$1,303,346	26	\$1,659,855	26
Shoreside monitoring	\$181,209	12	\$456,947	13	\$119,793	22	\$148,222	21
Taxes (property and excise)	—	—	—	—	\$1,351,010	27	\$1,543,594	27

Table B.11: Total Custom Processing.

Custom Processing	2009		2010		2011		2012	
	Total	N	Total	N	Total	N	Total	N
Cost of custom processing of whiting	852,453	3	***	***	***	***	***	***
Cost of custom processing of non-whiting groundfish	1,297,339	3	420,546	3	***	***	***	***
Cost of custom processing of other (non-whiting, non-groundfish)	1,359,705	3	1,305,629	4	928,741	4	602,824	4
Weight of custom processing of whiting	3,870,863	3	***	***	***	***	***	***
Weight of custom processing of non-whiting groundfish	4,079,781	3	1,382,174	3	***	***	***	***
Weight of custom processing of other (non-whiting, non-groundfish)	6,202,438	3	5,605,518	4	2,965,509	3	253,555	3

Table B.12: Total Other Revenue.

Other Revenue	2009		2010		2011		2012	
	Total	N	Total	N	Total	N	Total	N
Custom processing of whiting	***	***	***	***	***	***	474,876	4
Custom processing of non-whiting groundfish	***	***	89,854	3	667,714	5	1,070,067	6
Custom processing of other (non-whiting, non-groundfish)	379,196	6	483,527	7	1,063,806	5	1,572,122	6
Offloading	—	—	—	—	1,862,756	13	1,625,459	17

Appendix C Future Improvements

There are several ways in which the EDC Program will continue to improve the data collection administration and operations with regards to first receivers and shorebased processors.

- There are several points in which the identification of buyers and shorebased processors can be improved. In past data collections, there were two issues with identifying shorebased processors and buyers.
 - First, initially, under the catch share program, the buyer of a fish could use the first receiver site license of an offloader to buy groundfish. This meant that there was no first receiver site license for the true buyer and therefore no way to identify this buyer. Recent changes to the regulations¹ now require that all buyers have a first receiver site license for all physical locations where they purchase, take custody, or control of an IFQ landing. The name of the buyer should in all cases now match the name on the first receiver permit and that on the e-ticket. The implementation of these regulations should improve EDC data quality and catch-share performance monitoring for the 2013 survey year and beyond.
 - The second issue is the identification of shorebased processors. The first receiver site license program, and previously, the state run licensing program for commercial seafood buyers, can be used for all buyers of seafood, but there is currently no method for identifying processors that do not have a first receiver site license and receive round or headed-and-gutted IFQ species groundfish or whiting from a first receiver.

C.1 Cost allocation

The EDC program continues the process of developing methods for cost allocation for processors, with further economic analysis and interviews with participants needed. In addition to exploration of other methods for cost disaggregation, the EDC Program has tentatively chosen the following species groups to provide narrower fishery categories for cost disaggregation in the future:

- Whiting

¹ For more detailed information see: Compliance Guide Pacific Coast Groundfish Trawl Rationalization Program: Changes for 2012 and beyond Federal Register: 76 FR 74725, December 1, 2011

- Catch share groundfish
- Fixed gear groundfish
- Open access groundfish
- Crab
- Shrimp
- Salmon
- Coastal pelagics, and highly migratory species including tuna and herring
- Halibut, including Pacific and California
- Other, including squid, echinoderms, shellfish, sturgeon, and “other”

C.2 Processor types

In this report, EDC Processors and Non-Processors are examined separately. In subsequent reports, the EDC Program will attempt to further partition the entities into groups that will aid in the analysis and interpretation of the data. Some options are partitions based on the species or groups of species processed, or partitions based on more refined categories for types of operations. Input from participants and fishery managers would be helpful in determining which partitions would be most useful.